VDOİHİ

Bağımlı ve Bir Bağımsız Olasılıklı Farklı Dizilimsiz Bağımlı Durumlu Simetrinin İlk ve Herhangi İki Durumunun Bulunabileceği Olaylara Göre Tek Kalan Simetrik Olasılık

Cilt 2.3.3.1.5.1.1.3

İsmail YILMAZ

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VDOİHİ Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık Cilt 2.3.3.1.5.1.1.3

İsmail YILMAZ

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1. Bağımlı durumlu simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

Dili: Türkçe + Matematik Mantık

Türkiye Cumhuriyeti Devleti
Kuruluşunun
100.Yılı Anısına

M. Atatürk

DÜZELTME

Bu cilt için

$_{fz}S_{j_s,j_{ik},j^{sa}}$

simgesi yerine

$_{fz}S^{DST}_{j_s,j_{ik},j^{sa}}$

simgesi olmalı.

d

Yazar Hakkında

İsmail YILMAZ; Hamzabey Köyü, Yeniçağa, Bolu'da 1973 yılında doğdu. İlkokulu köyünde tamamladıktan sonra, ortaokulu Yeniçağa ortaokulunda tamamladı. Liseyi Ankara Ömer Seyfettin ve Gazi Çiftliği Liselerinde okudu. Lisans eğitimini Çukurova Üniversitesi Fen Edebiyat Fakültesi Fizik bölümünde, yüksek lisans eğitimini Sakarya Üniversitesi Fen Bilimleri Enstitüsü Fizik Anabilim Dalında ve doktora eğitimini Gazi Üniversitesi Eğitim Bilimleri Enstitüsü Fen Bilgisi Eğitimi Anabilim Dalında tamamladı. Fen Bilgisi Eğitiminde; Newton'un hareket yasaları, elektrik ve manyetizmanın prosedürel ve deklaritif bilgi yapılarıyla birlikte matematik mantık yapıları üzerine çalışmalar yapmıştır. Yazarın farklı alanlarda yapmış olduğu çalışmalar arasında ölçme ve değerlendirmeye yönelik çalışmaları da mevcuttur.

VDOİHİ

Veri **D**eğişkenleri **O**lasılık ve **İ**htimal **H**esaplama **İ**statistiği (VDOİHİ) ile olasılık ve ihtimal yasa konumuna getirilmiştir.

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- ✓ Makinaların insan gibi düşünebilmesini, karar verebilmesini ve davranabilmesini sağlayacak gerçek yapay zekayla ilişkilendirilmiştir.
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- ✓ Teorik kabullerle genetikle ilişkilendirilmiştir.
- ✓ Bilgi merkezli değerlendirme yöntemidir.

Sanırım bilgi ve teknolojideki kaderimiz veriyle ilişkilendirilmiş.

f

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GÜLDÜNYA

Simge ve Kısaltmalar

n: olay sayısı

$\boldsymbol{n}$: bağımlı olay sayısı

$\mathbb{m}$: bağımsız olay sayısı

$\imath$: bağımsız durum sayısı

I: simetrinin bağımsız durum sayısı

$\mathbb{l}$: simetrinin bağımlı durumlarından önce bulunan bağımsız durum sayısı

$\boldsymbol{I}$: simetrinin bağımlı durumlarından sonra bulunan bağımsız durum sayısı

$\mathbb{k}$: simetrinin bağımlı durumları arasındaki bağımsız durumların sayısı

k: dağılımın başladığı bağımlı durumun, bağımlı olasılıklı farklı dizilimsiz dağılımlardaki sırası

$\boldsymbol{l}$: ilgilenilen bağımlı durumun, bağımlı olasılıklı farklı dizilimsiz dağılımlarındaki sırası

$_{\boldsymbol{i}}\boldsymbol{l}$: simetrinin ilk bağımlı durumunun, bağımlı olasılık farklı dizilimsiz dağılımın son olayı için sırası. Simetrinin sonuncu bağımlı olayındaki durumun, bağımlı olasılık farklı dizilimsiz dağılımlarındaki sırası

$\boldsymbol{l_i}$: simetrinin son bağımlı durumunun, bağımlı olasılıklı farklı dizilimsiz dağılımlardaki sırası. Simetrinin birinci bağımlı olayındaki durumun, bağımlı olasılık farklı dizilimsiz dağılımlarındaki sırası

$\boldsymbol{l_s}$: simetrinin ilk bağımlı durumunun, bağımlı olasılıklı farklı dizilimsiz dağılımlardaki sırası. Simetrinin sonuncu bağımlı olayındaki durumun, bağımlı olasılık farklı dizilimsiz dağılımlarındaki sırası

$\boldsymbol{l_{ik}}$: simetrinin aranacağı durumdan önce bulunan bağımlı durumun, bağımlı olasılıklı farklı dizilimsiz dağılımlardaki sırası veya simetrinin iki bağımlı durumu arasında bağımsız durum bulunduğunda, bağımsız durumdan önceki bağımlı durumun, bağımlı olasılıklı farklı dizilimsiz dağılımlardaki sırası

$\boldsymbol{l_{sa}}$: simetrinin aranacağı bağımlı durumunun, bağımlı olasılıklı farklı dizilimsiz dağılımlardaki sırası. Simetrinin aranacağı bağımlı olayındaki durumun, bağımlı olasılık farklı dizilimsiz dağılımlarındaki sırası

j: son olaydan/(alt olay) ilk olaya doğru aranılan olayın sırası

j_i: simetrinin son bağımlı durumunun, bağımlı olasılıklı dağılımlarda bulunabileceği olayların, son olaydan itibaren sırası

j_{sa}^{i}: simetriyi oluşturan bağımlı durumlar arasında simetrinin son bağımlı durumunun bulunduğu olayın, simetrinin son olayından itibaren sırası $\left(j_{sa}^{i} = s\right)$

j_{ik}: simetrinin ikinci olayındaki durumun, gelebileceği olasılık dağılımlarındaki olayın sırası (son olaydan ilk olaya doğru) veya simetride, simetrinin aranacağı durumdan önce bulunan bağımlı durumun, bağımlı olasılıklı dağılımlarda bulunabileceği olayların, son olaydan itibaren sırası veya simetrinin iki bağımlı

durum arasında bağımsız durumun bulunduğunda bağımsız durumdan önceki bağımlı durumun bağımlı olasılıklı dağılımlarda bulunabileceği olayların son olaydan itibaren sırası

j_{sa}^{ik}: j_{ik}'da bulunan durumun simetriyi oluşturan bağımlı durumlar arasında bulunduğu olayın son olaydan itibaren sırası

$j_{X_{ik}}$: simetrinin ikinci olayındaki durumun, olasılık dağılımlarının son olaydan itibaren bulunabileceği olayın sırası

j_s: simetrinin ilk bağımlı durumunun, bağımlı olasılıklı dağılımlarda bulunabileceği olayların, son olaydan itibaren sırası

j_{sa}^{s}: simetriyi oluşturan bağımlı durumlar arasında simetrinin ilk bağımlı durumunun bulunduğu olayın, simetrinin son olayından itibaren sırası ($j_{sa}^{s} = 1$)

j_{sa}: simetriyi oluşturan bağımlı durumlar arasında simetrinin aranacağı durumun bulunduğu olayın, simetrinin son olayından itibaren sırası

j^{sa}: j_{sa}'da bulunan durumun bağımlı olasılıklı dağılımda bulunduğu olayın son olaydan itibaren sırası

D: bağımlı durum sayısı

D_i: olayın durum sayısı

s: simetrinin bağımlı durum sayısı

$\boldsymbol{s}$: simetrik durum sayısı. Simetrinin bağımlı ve bağımsız durum sayısı

m: olasılık

M: olasılık dağılım sayısı

U: uyum eşitliği

u: uyum derecesi

s_i: olasılık dağılımı

${}_{fz}S_{j_i}^{DST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin son durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

${}_{fz}S_{j_i,0}^{DST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

${}_{fz}S_{j_i,D}^{DST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin son durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

${}_{fz}^{0}S_{j_i}^{DST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız durumlu simetrinin son durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

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durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık

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E2

BAĞIMLI ve BİR BAĞIMSIZ OLASILIKLI FARKLI DİZİLİMSİZ DAĞILIMLAR

Bağımlı ve Bir Bağımsız Olasılıklı Farklı Dizilimsiz Dağılımlar

- **Simetrik Olasılık**
- **Toplam Düzgün Simetrik Olasılık**
- **Toplam Düzgün Olmayan Simetrik Olasılık**
- **İlk Simetrik Olasılık**
- **İlk Düzgün Simetrik Olasılık**
- **İlk Düzgün Olmayan Simetrik Olasılık**
- **Tek Kalan Simetrik Olasılık**
- **Tek Kalan Düzgün Simetrik Olasılık**
- **Tek Kalan Düzgün Olmayan Simetrik Olasılık**
- **Kalan Simetrik Olasılık**
- **Kalan Düzgün Simetrik Olasılık**
- **Kalan Düzgün Olmayan Simetrik Olasılık**

Bağımlı dağılım ve bir bağımsız olasılıklı durumla oluşturulabilen dağılımlara ve bağımlı olasılıklı dağılımların kendi olay sayılarından (bağımlı olay sayısı) büyük olanlara (bağımlı olay sayısı) dağılımıyla bağımlı ve bir bağımsız olasılıklı dağılımlar denir. Bağımlı dağılım farklı dizilimsiz dağılımlara uygulandığında, bu dağılımlara bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımlar denir. Bağımlı ve bir bağımsız olasılıklı dağılımlar; bağımlı dağılımlara, bağımsız durumlar ilk olaydan dağıtılmaya başlanarak tabloları elde edilir. Bu bölümde verilen eşitlikler, bu yöntemle elde edilen kurallı tablolara göre verilmektedir. Farklı dizilimsiz dağılımlarda durumların küçükten-büyüğe sıralamasıyla elde edilebilen kurallı tablolar kullanılmaktadır. Farklı dizilimsiz dağılımlarda durumların küçükten-büyüğe sıralama için verilen eşitliklerde kullanılan durum sayılarının düzenlenmesiyle, büyükten-küçüğe sıralama durumlarının eşitlikleri elde edilebilir.

Farklı dizilimsiz dağılımlar, dağılımın ilk durumuyla başlayan (bunun yerine farklı dizilimli dağılımlarda simetrinin ilk durumuyla başlayan dağılımlar), dağılımın ilk durumu haricinde dağılımın herhangi bir durumuyla başlayan dağılımlar (bunun yerine farklı dizilimli dağılımlarda simetride bulunmayan bir durumla başlayan dağılımlar) ve dağılımın ilk durumu eşit olmayan dağılımının başladığı farklı ikinci durumla başlayıp simetrinin ilk durumuyla başlayan dağılımların sonuna kadar olan dağılımlarda (bunun yerine farklı dizilimli dağılımlarda simetride bulunmayan diğer durumlarla başlayan dağılımlar) simetrik, düzgün simetrik, düzgün olmayan simetrik v.d. incelenir. Bağımlı dağılımlardaki incelenen başlıklar, bağımlı ve bir bağımsız olasılıklı dağılımlarda, bağımsız durumla ve bağımlı durumla başlayan dağılımlar olarak da incelenir.

GÜDÜMYA

Bağımlı dağılımlar; a) olasılık dağılımlardaki simetrik, (toplam) düzgün simetrik ve (toplam) düzgün olmayan simetrik b) ilk simetrik, ilk düzgün simetrik ve ilk düzgün olmayan simetrik c) tek kalan simetrik, tek kalan düzgün simetrik ve tek kalan düzgün olmayan simetrik ve d) kalan simetrik, kalan düzgün simetrik ve kalan düzgün olmayan simetrik olasılıklar olarak incelendiğinden, bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımlarda bu başlıklarla incelenmekle birlikte, bu simetrik olasılıkların bağımsız durumla başlayan ve bağımlı durumlarıyla başlayan dağılımlara göre de tanım[illegible] eşitlikleri verilmektedir.

Farklı dizilimsiz dağılımlarda simetrinin durumlarının olasılık dağılımındaki sıra[illegible] simetrik olasılıkları etkilediğinden, bu bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımları da etkiler. Bu nedenle bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımlarda, simetrinin durumlarının bulunabileceği olaylara göre simetrik olasılık eşitlikleri, simetrinin durumlarının olasılık dağılımındaki sıralamalarına göre ayrı ayrı verilecektir. Bu eşitliklerin elde edilmesinde bağımlı olasılıklı farklı dizilimsiz dağılımlarda simetrinin durumların bulunabileceği olaylara göre çıkarılan eşitlikler kullanılacaktır. Bu eşitlikler, bir bağımlı ve bir bağımsız olasılıklı dağılımlar için VDO Cilt 1'de çıkarılan eşitliklerle birleştirilerek, bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımlar için yeni eşitlikleri elde edilecektir. Eşitlikleri adlandırılmasında bağımlı olasılıklı farklı dizilimsiz dağılımlarda kullanılan adlandırmalar kullanılacaktır. Bu adların başına simetrinin bağımlı ve bağımsız durumlarına göre ve dağılımın bağımsız veya bağımlı durumla başlamasına göre "Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı/bağımsız-bağımlı/bağımlı-bir bağımsız/bağımlı-bağımsız/bağımsız-bağımsız durumlu/bağımsız/bağımlı" kelimeleri getirilerek, simetrinin bağımlı durumlarının bulunabileceği olaylara göre bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz adları elde edilecektir. Simetriden seçilen durumların bulunabileceği olaylara göre simetrik, düzgün simetrik veya düzgün olmayan simetrik olasılık için birden fazla eşitlik kullanılması durumunda gerekmedikçe yeni tanımlama yapılmayacaktır.

Simetrinin durumlarının bağımlı olasılık farklı dizilimsiz dağılımlarındaki sırasına göre verilen eşitliklerdeki toplam alma sınır değerleri, simetrinin küçükten-büyüğe sıralanan dağılımlarına göre verildiğinden bu dağılımlarda da aynı sıralama kullanılmaya devam edilecektir. Bağımlı olasılıklı farklı dizilimsiz dağılımlarda olduğu gibi bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımlarda da aynı eşitliklerde simetrinin durum sayıları düzenlenerek büyükten küçüğe sıralanan dağılımlar için de simetrik olasılık eşitlikleri elde edilir.

Bu bölümde bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımlardan, bağımsız olasılıklı durumla başlayıp ilk bağımlı durumu bağımlı olasılıklı dağılımın ilk bağımlı durumu olan dağılımın başlayabileceği diğer bir bağımlı durum olan ve bağımsız olasılıklı durumla başlayan dağılımın aynı ilk bağımlı durumuyla başlayan dağılımlarda, simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre tek kalan simetrik olasılığın eşitlikleri verilmektedir.

GÜDÜNYA

SİMETRİDEN SEÇİLEN ÜÇ DURUMA GÖRE TEK KALAN SİMETRİK OLASILIK

$$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$$

$$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$$

$$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$$

$$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$$

$$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1) \wedge$$

$$D \geq \boldsymbol{n} < n \wedge \mathbb{k} >= 1 \wedge$$

$$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} \leq j_{sa} - 1 \wedge j_{sa} \leq j_{sa}^{ik} - 1 \wedge$$

$$\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}\} \wedge$$

$$s > 3 \wedge \boldsymbol{s} = s \wedge$$

$$\mathbb{k}_z \mathbb{z} = 1$$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ \ )}$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = j_{sa} + 1)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - \boldsymbol{n} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l} - 1)!}{(D - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - s)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa} - j_{sa}^{ik} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

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$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_{ik} = j_{sa} + j_{sa}^{ik} - j_{sa}^{ik} + 1)} \sum_{(j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}^{ik} + 1)} \sum_{(j^{sa} = j_{sa} + 1)} \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})} $$

$$ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot $$

$$ \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot $$

$$ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot $$

$$ \frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot $$

$$ \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} $$

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$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n})\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{i} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )}
\sum_{j_{ik} = j_{sa}^{ik} + 1}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = j_{sa} + 1)}^{(\boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 1)}
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.
$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\cdot$$

$$\sum_{k=}^{(}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\boldsymbol{l_{ik}}-}\sum_{j_{sa}^{ik}+1}^{(}\sum_{(j^{}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+2)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

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$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$_{fz}S_{j_s, j_i \ a} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \ \sum_{(j^{sa} = j_{sa} + 1)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \ \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \ \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j^{ik}_{sa}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j^{ik}_{sa}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=\boldsymbol{l}}\ \sum_{(j_s=j_{ik}-j^{ik}_{sa}+1)}^{(\ )}\ \sum_{j_{ik}=j^{ik}_{sa}\text{[illegible]}}^{\boldsymbol{l_s}+j^{ik}_{sa}\text{[illegible]}}\ \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}\text{[illegible]})}^{(\boldsymbol{l_{sa}}-\text{[illegible]})}$$

$$\sum_{\text{[illegible]}=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\text{[illegible]}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\text{[illegible]}-j_{ik}+1}^{n_{is}+j_s-\text{[illegible]}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j^{ik}_{sa}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j^{ik}_{sa}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D\geq\boldsymbol{n}<n\land\boldsymbol{l}\neq\ {}_{i}\boldsymbol{l}\land\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\land$

$1\leq j_s\leq j_{ik}-j^{ik}_{sa}+1\land j_s+j^{ik}_{sa}-1\leq j_{ik}\leq j^{sa}+j^{ik}_{sa}-j_{sa}\land$

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$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} \leq D + j_{sa}^{ik} - \boldsymbol{n} \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$\sum_{j_s=2}^{(j_{ik}-j_{sa}^{ik}+} \sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

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$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}\sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}+\mathbb{k}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(n_{is}-1)!\cdot(n_i-n_{is}-j_s+1)!}$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \boldsymbol{l_i} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{sa}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_i} \leq D+s-\boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \boldsymbol{l_i} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

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$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{sa}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge$

$\boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n})\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$ {}_{fz}S_{j_s \ldots j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot \frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot $$

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$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{j_{ik}=j_{sa}^{ik}}^{(\boldsymbol{l}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_i=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-$$

$$\sum_{k=\boldsymbol{n}+\mathbb{k}-}^{}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\Big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ {}_{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

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$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{is} \leq j_{sa}^{ik} - 1$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}^{is}, \cdots, j_{sa}^{i}\} \wedge$

$s \geq 3 \wedge \boldsymbol{s} = \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l} - j_{sa} + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )} \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} $$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\cdots-1)!\cdot(\boldsymbol{n}-\cdots)!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\cdots-1)!}{\cdots-j_s-\boldsymbol{l}+1)!\,(j_s-2)!}\cdot$$

$$\frac{(D+j_s-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\cdots-\boldsymbol{l_{sa}})!\,\cdots+j_{sa}-j^{sa}-s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s \cdots_{sa}^{ik}-1 \leq \cdots \leq j^{sa} \cdots_{ik} \cdots_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\cdots \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} \cdots \boldsymbol{l_{ik}} \wedge \cdots+j_{sa}-s=\boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < \cdots \boldsymbol{l} \neq \ {}_{\boldsymbol{i}}\boldsymbol{l} \cdots \leq D-\boldsymbol{n}+1$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s \cdots_{sa}^{ik} \cdots \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \cdots+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+\cdots=\boldsymbol{l_s} \wedge \boldsymbol{l_s}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \cdots-\boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < \cdots \wedge \boldsymbol{l} \neq \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}} \wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i} \leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1)\Big) \wedge$

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$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_{z}: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{\boldsymbol{l}=\boldsymbol{l}}^{(\quad)} \sum_{(j_s = j_{ik} \quad j_{sa}^{ik}+1)}
$$

$$
\boldsymbol{l_{ik}} \quad +1 \qquad (\quad)
$$

$$
\sum_{=j_{sa}^{ik}+1} (\quad j_{ik}+j_{sa}-j_{sa}^{ik})
$$

$$
n \qquad (\quad +1)
$$

$$
\sum_{n_i \quad +\mathbb{k}} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}
$$

$$
j_s-j_{ik} \qquad (n_{ik}+j_{ik}-j^{sa}-\mathbb{k})
$$

$$
\sum_{n_{ik} \quad \mathbb{k}-j_{ik}+1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

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$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n})\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$ {}_{fz}S_{j_s \ \ j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ \ )} $$

$$ \sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \ \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} $$

$$ \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \ \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} $$

$$ \sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \ \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})} $$

$$ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot $$

$$ \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot $$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-\right.}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} \geq \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{sa}} \leq D+j_{sa}-\boldsymbol{n} \wedge \boldsymbol{l_i} \leq D+s-\boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1$ $-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}$

$s > 3 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z$ $1 \Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} \quad)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} \quad (j^{sa} + j_{s} - j_{ik} - j_{sa})!}$$

$$\frac{(D + \quad - \boldsymbol{l_{sa}} \quad}{(D + j^{sa} \quad \boldsymbol{n} - \boldsymbol{l_{sa}}) \quad (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \quad _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j^{ik} \quad \leq j_{ik} \leq \quad a + j_{sa}^{ik} - j \quad \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} \quad _{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} \quad = \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} \leq D + j_{sa}^{ik} - \boldsymbol{n} \quad \leq D + s - \boldsymbol{n}$

$D \quad \boldsymbol{n} < n \wedge \quad = \mathbb{k} >= \quad \wedge$

$j_{sa} \quad j_{sa}^{i} - 1 \wedge j_{sa}^{ik} \quad j_{sa} - 1 \quad \leq j_{sa}^{ik} - 1 \wedge$

$\quad \{j_{sa}^{s}, \cdots \quad _{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots \quad _{sa}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s \quad \mathbb{k} \wedge$

$\mathbb{k}_{\boldsymbol{z}} \quad = 1$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = 2)}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\quad)}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(j_s-\boldsymbol{l}-1)!}{(j_s-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik}+1)!}{(j_{ik}+\boldsymbol{l_{ik}}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\ \sum_{(j_s=2)}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1}\ \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\ )}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

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$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}-$$

$$\Big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ _{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}$$

$$\boldsymbol{l_i}\leq D+s-\boldsymbol{n})\vee$$

$$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ _{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}+1>\boldsymbol{l_s}\wedge$$

$$\boldsymbol{l_{sa}}+D+j_{sa}-\boldsymbol{n}\wedge\leq D+\boldsymbol{n})\big)\wedge$$

$$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>=1\wedge$$

$$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}-1\wedge j_{sa}^{s}\leq j_{sa}^{ik}-1\wedge$$

$$\boldsymbol{s}:\{j_{sa}^{s},\cdots,j_{sa}^{ik},\mathbb{k},j_{sa},\cdots,j_{sa}^{i}\}\wedge$$

$$z>3\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$$

$$\mathbb{k}_z:z=1\Rightarrow$$

$$_{fz}S_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)}\sum_{(j_s=2)}$$

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$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_{is}-n_{ik}}{(j_{ik}-j_s}$$

$$\frac{(n_{ik}}{(j^{sa}-j_{ik}}$$

$$\frac{(n_{sa}}{(n_{sa}+j}$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_s + 1)!}{(j_s + \boldsymbol{l_{ik}} - \quad)! \cdot (j_{ik} - \quad - j_{sa}^{ik} + 1)!}$$

$$\frac{\quad + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} \quad \boldsymbol{l_{ik}})! \cdot (\quad + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - \quad - \boldsymbol{l_{sa}} - s)!}{(D \quad j^{sa} - \boldsymbol{n} - \boldsymbol{l} \quad)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \quad _i\boldsymbol{l} \wedge \boldsymbol{l} \quad \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq \quad ^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$$

$$(D \quad \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \quad \wedge \boldsymbol{l_s} \leq \quad \boldsymbol{l} + 1 \wedge$$

$$1 \leq j_s \leq \quad - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \quad ^{sa} \quad \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} \quad 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$$

$$\boldsymbol{l_i} \leq D + \quad \boldsymbol{n}) \vee$$

$$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \quad _i\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$$

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$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, {}^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}} \quad j_{sa}+2)} \sum_{(j_s}
$$

$$
\sum_{j_{ik} \quad + j_{sa}^{ik}-1} \sum_{(\quad \quad -j_{sa}^{ik})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

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$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s +$

$\mathbb{k} \wedge z = 1 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} - \boldsymbol{l} - j_{sa}^{ik} + 2)} \sum_{(j_s=2)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )} \left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right) \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})} $$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \quad - s)!}{(D + j^{sa} - \quad)! \cdot (\boldsymbol{n} + \quad - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \quad _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \quad + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + \quad j_s + j_{sa}^{ik} - 1 \leq \quad \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq \quad ^{sa} \leq \boldsymbol{n} + \quad - \quad \wedge$

$\boldsymbol{l_{ik}} - \quad ^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s \quad \boldsymbol{n})\Big) \wedge$

$D > \quad n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - \quad \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\quad , j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)} \sum_{(j_s=2)}
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}+j_{ik}^{sa}-\mathbb{k})} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1}^{}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{sa}^{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

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$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_{z}: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{\quad} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}-1)}
$$

$$
\sum_{j_{ik}=j_s+j_{sa}-1}^{\quad} \sum_{(j^{sa}=j_{ik}+j_{sa}-\mathbb{k})}^{(\boldsymbol{l_{sa}}-\quad-1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_i=j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{is}=n_i-j_s+1}^{n_{is}+j_s} \sum_{(n_{ik}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\sum_{n_{ik}=n_{is}+\mathbb{k}-j_{ik}+1}^{\quad} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{\quad}
$$

$$
\frac{(n_i - n_{is} - 1)!}{2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

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$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} \leq D + j_{sa}^{ik} - \boldsymbol{n} \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$\sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot \frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot \frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

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$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{sa}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge$

$\boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n})\Big)$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - \ldots \wedge j_{sa}^{s} \leq j_{sa} \ldots 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \ldots$

$s > 3 \wedge \boldsymbol{s} = s + \ldots \wedge$

$\mathbb{k}_z : z = 1 = \ldots$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_s + 1)!}{(j_s + \boldsymbol{l_{ik}} - \quad)! \cdot (j_{ik} - \quad - j_{sa}^{ik} + 1)!}$$

$$\frac{\quad a + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (\quad + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - \quad a - \boldsymbol{l_{sa}} - s)!}{(D - \quad j^{sa} - \boldsymbol{n} - \boldsymbol{l} \quad)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \quad _i\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \quad D + j_{sa} - \quad$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + \quad - 1 \leq j_{ik} \leq \quad sa + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq \quad a \leq \boldsymbol{n} + j_{sa} - s$

$\boldsymbol{l} \quad - j_{sa}^{ik} + \quad \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} \quad j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \quad >= 0 \wedge$

$j_{sa} \leq j_s \quad - 1 \wedge j_{sa}^{ik} = j_s \quad - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa} \quad j_{sa}, \cdots \quad sa\} \wedge$

$s \geq \quad \wedge \quad = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)} \right.$$

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$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)} \sum_{(j^{sa}=j_{sa}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + \quad - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ \ )}\right.$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=j_{sa}+2)}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - 1)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - 1)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - j_{sa} - \boldsymbol{l_{sa}})! \cdot (D + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{(j_s = j_{ik}^{ik}+1)} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+2)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

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$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$\mathfrak{c}_{j^{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )}$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = j_{sa} + 1)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq {}^{ik}_{a} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = j_{sa} + 1)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\left. \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \right)$$

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$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$$\left(\sum_{k=\boldsymbol{l}}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}\sum_{j_{ik}=}^{j^{sa}+j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa}}^{(\boldsymbol{l_s}-\boldsymbol{l})}\right.$$

$$\sum_{=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=}^{n_{is}+j_s-j_{}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{n}-\boldsymbol{l}-1)!}{(\boldsymbol{n}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}-\boldsymbol{l_{sa}}-j_{sa}+\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{l} < n \wedge \boldsymbol{l} \neq \boldsymbol{l_{ik}} \leq \boldsymbol{l_{sa}} \leq D + j_{sa}$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s - j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + \boldsymbol{n} - j_{sa}^{ik} \leq j^{sa} + \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \boldsymbol{l_{sa}} > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} - j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{l} < n \wedge l - \boldsymbol{l_{sa}} = 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\{;s$ $j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik})} \right.
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+2)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{sa}^{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - j_{sa} - \boldsymbol{l_{sa}})! \cdot (j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{j_{ik}=j^{sa}}^{j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

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$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Big)$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}}\Big) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} -$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \Bigg(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )}$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = j_{sa} + 1)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-1)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-1)!}\Bigg)+$$

$$\left(\sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)}\ \sum_{(j_s=2)}^{j^{sa}+j_{sa}^{ik}-1}\ \sum_{j_{ik}=j_{sa}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}\ \sum_{(\quad -j_{sa}+2)}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

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$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{j_{ik}=j_{sa}^{ik}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+}^{n_{is}+j_s-j_{ik}}\sum_{j_{ik}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}\sum_{(n_{sa}=}^{}$$

$$\frac{(n_i-j_s-1)!}{(\quad)!\cdot(n_i-\quad-j_s+1)!}\cdot$$

$$\frac{(\quad-n_{ik}-\quad)!}{(j_{ik}-\quad-1)!\cdot(\quad+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(\quad-n_{sa}-1)!}{(\quad-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})}\sum_{(j_s=2)}\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}\sum_{(j^{sa}=j_{sa}+2)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(\boldsymbol{l_s}-j_s+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_{ik}}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$$D\geq \boldsymbol{n}<n\wedge \boldsymbol{l}\neq {}_{\boldsymbol{i}}\boldsymbol{l}\wedge \boldsymbol{l_{sa}}<D+j_{sa}-\boldsymbol{n}\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq {}^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+{}_{sa}-j_{sa}^{ik}\leq j^{sa}<\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\wedge\boldsymbol{l_{sa}}+{}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge$$

$$D\geq {}<n\wedge I=\mathbb{k}=0\wedge$$

$$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}\leq j_{sa}^{ik}-1\wedge$$

$$\boldsymbol{s}:\{j_s^s\ldots,j_{sa}^{ik},\mathbb{k},\ldots,j_{sa}^{i}\}\wedge$$

$$s>3\wedge\boldsymbol{s}=+\mathbb{k}\wedge$$

$$\cdot z=1$$

$${}_{fz}S_{j_s,j_{ik},j^{sa}}=\left(\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}\right.$$

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$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\left.\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\right) +$$

$$\left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

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$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-\boldsymbol{l}+1)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-1)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\Bbbk >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s},\cdots,j_{sa}^{ik},\Bbbk,j_{sa},\cdots,j_{sa}^{i}\} \wedge$

$s>3 \wedge \boldsymbol{s}=s+\Bbbk$

$\Bbbk=z=1 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{is}=\boldsymbol{n}+\Bbbk-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\Bbbk-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\Bbbk)}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - \boldsymbol{l} + 1)! \cdot (\boldsymbol{l} - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l} - s)!}{(D + j^{sa} - \boldsymbol{l} - s)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa} \leq j_{sa}^{ik} - 1$

$\boldsymbol{s}: \{j_{sa}^{s} \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \ldots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s \wedge$

$\mathbb{k}_z: \ldots 1 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)} \right.$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}$$

$$\left. \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \right)$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}{(\boldsymbol{n}+j^{sa}-\boldsymbol{n}-j^{sa})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\left(\sum_{k=j_{ik}-j_s}^{(\quad)} \sum_{j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

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$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$j^{sa} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{j_{ik} = j_{sa}^{ik} + 1}^{(\ )} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{n} \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{n_{is} + j_s - j_{ik}} \sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\left(\sum_{k=\boldsymbol{l}}^{}\sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik})}\sum_{j_{ik}=j_{sa}^{ik}+}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{(j^{sa}=j_{ik}+}^{}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i}$$

$$+j_s-j_{ik}$$

$$\sum_{k=\boldsymbol{n}+\mathbb{k}-}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-\quad)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(\quad-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{}\sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - \boldsymbol{n} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (n_{sa} - j^{sa})!} \cdot$$

$$\frac{(j_s - \boldsymbol{l} - 1)!}{(j_s - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1)!}{(j_{ik} + \boldsymbol{l_{ik}} - j_s - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Big)$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_s} - j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}}\big) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s\big)\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

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$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik} = j_{sa}^{ik}+1}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s)}^{(\ )}
$$

$$
\sum_{n_{ik} = n_{is} + j_s - j_{ik}}^{(\ )} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}^{(\ )}
$$

$$
\sum_{n_{ik} = n_{is} - j_{ik} + 1}^{(\ )} \sum_{(n_{sa} = n_{ik} - j^{sa} + 1)}^{(\ )}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{is} - 1)!}{(j_{ik} - j_s)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = 2)}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{j_{ik} = j_{sa}^{ik}+1}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik} + 1)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} \right.
$$

$$
\left. \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \right.
$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (\quad - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(\quad + \boldsymbol{l_{sa}} - \quad - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + \quad - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\quad - \boldsymbol{l}+1)} \sum_{(j_s=2)} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-\quad-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}$$

$$(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\quad+j_{sa}-j\quad s)!}+$$

$$\sum_{k}\ \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik})}\ \sum_{j_{sa}^{ik}+2}^{(\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}\quad)}\ \sum_{(\quad)}^{(\quad-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{\quad}-j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

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$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$ {}_{\mathbb{k}_z}S_{j_s, j_{ik}, j_{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}-j_{sa}^{ik}+2)} \sum_{(j_s=2)} \right.$$

$$\sum_{j_{ik}=j_{sa}-j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

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$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\Bigg(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)}\sum_{(j_s=2)}\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}}^{n_{is}+j_s-j_{}+1}\sum_{(n_{sa}=\boldsymbol{n}-j^{}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-1)!}{(2)\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j_{ik}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \quad n \wedge \boldsymbol{l} \neq \quad \boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{} + j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{} \quad j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

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$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_{z}: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2}
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}} \sum_{=j_{ik}+j_{sa}^{ik})}
$$

$$
\sum_{(n_i-j_s} \sum_{n_i=\boldsymbol{n}+\mathbb{k}} \sum_{=\boldsymbol{n}+\mathbb{k}-j_s+1)}
$$

$$
+j_s-j_{ik} \sum_{j^{sa}-\mathbb{k})}
$$

$$
\sum_{=\boldsymbol{n}+\mathbb{k}-j} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s -)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{i_s - n_{ik} - 1)!}{ik - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(- j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < {}_{i}\boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

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$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \le j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \right.
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(\quad -j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\quad \mathbb{k}-j_{ik}+1}^{n_{is}+j_s} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \right.
$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}+1)!}\cdot$$

$$\frac{(n_{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_i-n_{is}-\boldsymbol{l}-1)!}{(n_i-n_{is}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}-\boldsymbol{l_{sa}}-j_{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{l} < n \wedge \boldsymbol{l} \neq \boldsymbol{l_{sa}} \leq D + j_{sa}$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s - j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + \boldsymbol{n} - j_{sa}^{ik} \leq j^{sa} + \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \boldsymbol{n} > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} - j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{l} < n \wedge l - \boldsymbol{l_{sa}} = 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - \boldsymbol{n} \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\{s \quad j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)} \right.
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)} \right. \sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - j_{sa} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} - 0 \wedge$

$j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa}^{s} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1$

$$_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}\right.$$

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$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{sa}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)+$$

$$\left(\sum_{k=\boldsymbol{l}}\ \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\ \sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

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$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}})!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-1)}\sum_{(j_s=2)}^{(j_s-1)}\sum_{j_{ik}=j_{sa}^{ik}-1}^{(j_{ik}-1)}\sum_{(j_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

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$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}} \wedge$

$D+s-\boldsymbol{n} < \boldsymbol{l_i} \leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}$ $\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}} \wedge$

$D+j_{sa}-\boldsymbol{n} < \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1)\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-$ $\wedge j_{sa}^{s} \leq j_{sa}$ $1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\}$

$s > 3 \wedge \boldsymbol{s}=s+$ $\wedge$

$\mathbb{k} \cdot z=1 =$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ \ )} \sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - 1)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - 1)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - j_{sa} - \boldsymbol{l_{sa}})! \cdot (D + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{(j_s = j_{ik}+1)} \sum_{j_{ik} = j_{sa}+1} \sum_{(j^{sa} = \boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 2)} \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

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$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{n} - j_{sa}^{ik} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \boldsymbol{n} = 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\{j_{sa}^{s}, \ldots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}
$$

$$
\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \quad \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \quad \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}}^{n_{is}+j_s-j_{ik}} \quad \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_{\cdot} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - \quad j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} \quad _{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} \quad j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} \quad n_{sa} - 1)!}{(j^{sa} \quad _{ik} - 1)! \quad n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)} \quad \sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \quad \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \quad \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{n}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(j_{sa}^{ik}+j_{sa}^{ik}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-j_{sa})!\cdot(j^{sa}-j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{ik}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\Big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ _{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}<D-\boldsymbol{n}+1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge$$

$$D+j_{sa}-\boldsymbol{n}<\boldsymbol{l_{ik}}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1\wedge$$

$$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_i}+s-\boldsymbol{n}-j_{sa})\vee$$

$$(D\geq\boldsymbol{n}\leq n\wedge\boldsymbol{l}\neq\ _{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$$

$$D+j_{sa}-\boldsymbol{n}<\boldsymbol{l_{sa}}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1)\Big)\wedge$$

$$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>=0\wedge$$

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$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \le j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_{z}: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik} - j_{sa}^{ik})} \sum_{(j_s=2)}^{} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_s}+\boldsymbol{l_{ik}}-\boldsymbol{l})} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+j_{sa}-\boldsymbol{l}+1)}^{} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{is}=n_i-\mathbb{k}-j_s+1}^{n_{is}+j_s} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})} \sum_{n_{ik}=n_{is}-\mathbb{k}-j_{ik}+1}^{}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(n_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}^{} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l}-\boldsymbol{l}-1)!}{(\boldsymbol{l}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik}+1)!}{(\boldsymbol{l_{ik}}+\boldsymbol{l_{ik}}-j_s)!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D-j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\Big((D\geq \boldsymbol{n}<\boldsymbol{n}\wedge \boldsymbol{l}\neq \wedge \boldsymbol{l_s}\leq D-\boldsymbol{n}+$$

$$1\leq j_s\leq j_{ik}-j_{sa}+1\wedge j_s-j_{sa}^{ik}\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+\boldsymbol{l_{ik}}>\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}-j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge$$

$$D+j_{sa}-\boldsymbol{n}<\boldsymbol{l_{sa}}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1)\vee$$

$$(D\geq \boldsymbol{n}<\boldsymbol{n}\wedge \boldsymbol{l}\neq \boldsymbol{l}\wedge \boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{sa}}-j_{sa}+1>\boldsymbol{l_s}\wedge$$

$$D+j_{sa}-\boldsymbol{n}<\boldsymbol{l_{sa}}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1\wedge$$

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$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \ldots) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{s} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = 2)}
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.
$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{s}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-)!\cdot(j_{sa}+j_{sa}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{l_{sa}})!\cdot(+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{j_{ik}=\boldsymbol{k}+\boldsymbol{n}-D}^{-\boldsymbol{l}+1}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

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$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{\left(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s}\right)! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - [illegible] = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq [illegible] \leq j^{sa} + j_{sa}^{ik} - [illegible] \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{s}$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + [illegible] - j_{sa} > \boldsymbol{l_{ik}} \wedge [illegible] + j_{sa} - [illegible] = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + [illegible] - \boldsymbol{n} - 1)\Big)$

$D \geq [illegible] < n \wedge I = \mathbb{k}_{[illegible]} = 0 \wedge$

$j_{sa}^{s} \leq j_{sa}^{i} - 1 \wedge [illegible]_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{[illegible], \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$[illegible] > 3 \wedge [illegible] - s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa} - 1} \quad \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

GULDUNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(j_{ik}-\boldsymbol{l}-1)!}{(j_{ik}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}-\boldsymbol{l_{sa}}-j_{sa}+\boldsymbol{l})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\ \ )}\ \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (\boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{l_{sa}} - s)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{n} - j_{sa}^{ik} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\Big) \wedge$

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$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{\boldsymbol{l}=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )}
$$

$$
\sum_{j_{sa}^{ik}+1}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-j_{sa}-1} \sum_{(\boldsymbol{l_{sa}}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-j_{sa}-1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_{is}+j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

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$$\sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j^{ik}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\big((\ \ \geq \boldsymbol{n}\ \ n \wedge \boldsymbol{l} \neq\ \ _i\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n} < \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1 \wedge$

$D+s-\boldsymbol{n} < \boldsymbol{l_i} \leq D+\boldsymbol{l_{sa}}+s-\boldsymbol{n}-j_{sa}) \vee$

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$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$j_s S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

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$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - \quad)!} \cdot$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+\quad}^{(j_{sa}=j_{ik}+\quad-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{\quad=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-\quad)}$$

$$+j_s-j_{ik}\quad -j^{sa}-\mathbb{k})$$

$$\sum_{\quad=\boldsymbol{n}+\mathbb{k}-\quad+1}^{\quad} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{\quad}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - \quad)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{\quad_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(\quad - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

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$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{sa}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{s} + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} + \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} - \boldsymbol{l_{ik}} \wedge \boldsymbol{l_{sa}} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \ >= 0 \wedge$

$j_{sa} \leq j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}, j_{sa}, \cdots, j_{sa}\} \wedge$

$s > s \wedge = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \neq$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = 2)}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)} $$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(j_s-\boldsymbol{l}-1)!}{(j_s-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik}+1)!}{(j_{ik}+\boldsymbol{l_{ik}}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\ \sum_{(j_s=2)}\ \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\,(j_s-2)!}$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\,(j_{ik}-j_s-j_{sa}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-1)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-1)!\,(j^{sa}+j_{sa}-j_{ik}-j_{sa})!}$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{l_{sa}})!\,(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+$ $\leq j$ $j_{sa}^{ik}-$ $\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+$ $-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l}$ $\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j$ $>\boldsymbol{l_{ik}} \wedge \boldsymbol{l}$ $j_{sa}-s=\boldsymbol{l_{sa}} \wedge$

$D+s$ $\boldsymbol{n}<\boldsymbol{l_i} \leq D$ $\boldsymbol{l_s}+s-\boldsymbol{n}-1$ $\wedge$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l}$ ${}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s}$ $D-\boldsymbol{n}$ $1 \wedge$

$1 \leq j$ $\leq j_{ik}-j_{sa}^{ik}+$ $j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-$ $^{ik} \leq j^{sa} \leq$ $+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-$ $^{ik}+1=\boldsymbol{l_s}$ $\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}} \wedge$

$D+j_{sa}-$ $\leq \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1\Big) \wedge$

$\wedge I=\mathbb{k}>=0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}\colon\{j_{sa}^{s},\cdots,j_{sa}^{ik},\mathbb{k},j_{sa},\cdots,j_{sa}^{i}\} \wedge$

$s>3 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

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$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{(j_s=2)}
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D}
$$

$$
\sum_{n_i=\boldsymbol{n}}^{n} \sum_{=\boldsymbol{n}+}^{(j_s+1)}
$$

$$
\sum_{=j_{ik}+1}^{n_{is}+j_s} \sum_{=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-} \mathbb{k})
$$

$$
\frac{(n_i - n_{is}}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{-n_{ik}-1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{sa} - n_{sa} - 1)!}{-j_{ik}-1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)
$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(n_{sa}-j^{sa})!}\cdot$$

$$\frac{(j_s-\boldsymbol{l}-1)!}{(j_s-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}-\boldsymbol{l_{sa}}-j_{sa}+\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D-j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\Big((D\le \boldsymbol{n}<n\wedge \boldsymbol{l}\neq \quad \wedge \boldsymbol{l_s}\le D-\boldsymbol{n}+$$

$$1\le j_s\le j_{ik}-j_{sa}+1\wedge j_s\quad -j_{sa}^{ik}\le j_{ik}\le j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\le j^{sa}\le \boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge$$

$$D+\quad -\boldsymbol{n}<\boldsymbol{l_{sa}}\le D+\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{n}-j_{sa}^{ik}\wedge$$

$$D+s-\boldsymbol{n}\quad \boldsymbol{l_i}\le D+\boldsymbol{l_{sa}}+s-\boldsymbol{n}-j_{sa})\vee$$

$$\quad n\wedge \boldsymbol{l}\neq \ _i\boldsymbol{l}\wedge \boldsymbol{l_s}\le D-\boldsymbol{n}+1\wedge$$

$$1\le j_s\le j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\le j_{ik}\le j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\le j^{sa}\le \boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$$

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$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{[illegible]}sa} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{(j_s=2)}
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

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$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j_{ik}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}}^{(\boldsymbol{n}+j_s+1)}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{(\boldsymbol{n}+j_s-j_{ik})}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\Big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ {}_{i}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

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$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \le D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \le D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$

$(D \ge \boldsymbol{n} < n \wedge \boldsymbol{l} \ne \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \le D - \boldsymbol{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \le D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)) \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \le j_{sa} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{(j_s=2)}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{(\ )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{n} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{n_{is}+j_s-j_{ik}} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.
$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}-j_{sa}+1)!\cdot(j_{ik}-j_s-j_{sa}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-j_{sa})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=\boldsymbol{l}}\ \sum_{\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}$$

$$\boldsymbol{l_{sa}}+j_{sa}^{ik}\ j_{sa}+1 \qquad \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

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$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{sa}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s}$ j_{sa} $1 \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}}$ $s - \boldsymbol{n} - j_{sa})$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D$ $+ 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik}$ $\wedge j_s + j_{sa}^{ik} - 1$ $\leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik}$ $^{sa} \leq \boldsymbol{n}$ $_{sa} - s$

$D +$ $- \boldsymbol{n} < \boldsymbol{l_{sa}} \leq$ $+ \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\Big) \wedge$

$D \geq \boldsymbol{n} <$ $\wedge I = \mathbb{k} >=$ $\wedge$

$j_{sa} \leq$ $- 1 \wedge j_{sa}$ $j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots,$ $\mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$3 \wedge$ $= s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}} + \boldsymbol{n} - D - j_{sa})} \sum_{(j_s = 2)}$$

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$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}+\mathbb{k}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-1)}$$

$$\frac{(n_i-j_s-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s-\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (\quad - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(\quad + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D - j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \quad \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} \quad \wedge$

$1 \leq j_s \leq j_{ik} \quad _{sa}^{ik} + 1 \wedge \quad + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} \quad j_{sa} - j_{sa}^{ik} \leq j \quad \leq \boldsymbol{n} + j_s \quad \wedge$

$\boldsymbol{l_{ik}} - j_{sa} \quad 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} \quad j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} \quad \quad \leq \quad + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \quad \boldsymbol{n} \quad \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} \quad \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+}^{+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (\quad j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} \quad n_{ik} - 1)!}{(j_{ik} - j_s \quad 1)! \cdot (n_{is} \quad j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} \quad n_{sa} - 1)!}{(j^{sa} \quad j_{ik} - 1)! \quad n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}}^{} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (\quad - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(\quad + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D - j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \quad \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} \quad \wedge$

$1 \leq j_s \leq j_{ik} \quad j_{sa}^{ik} + 1 \wedge \quad + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} \quad j_{sa} - j_{sa}^{ik} \leq j \quad \leq \boldsymbol{n} + j_s \quad \wedge$

$\boldsymbol{l_{ik}} - j_{sa} \quad 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} \quad j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} \quad \quad \leq \quad + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \quad \boldsymbol{n} \quad \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} \quad \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik})} \sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i-n_{ik}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot
$$

$$
\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-j_s-n_{ik}-j_{ik})!}\cdot
$$

$$
\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot
$$

$$
\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+
$$

$$
\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - n_{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (\quad - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(\quad + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D - j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(\quad + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \quad \boldsymbol{l} \wedge \boldsymbol{l_s} \leq \quad - \boldsymbol{n} \quad 1 \wedge$

$1 \leq j \quad j_{ik} - j_{sa}^{ik} + 1 \quad j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \quad \leq j^{sa} \leq \quad + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} \quad + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa}^{ik} - \quad \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$\quad \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{j_{ik}+1}^{n_{is}+j_s} \sum_{(n_{ik}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}^{ik})}
$$

$$
\frac{(n_i - n_{is}}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot
$$

$$
\frac{-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot
$$

$$
\frac{(n_{sa}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+
$$

$$
\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

GÜLDÜMYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - n_{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \geq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa} - 1 \leq j_{ik} \leq n_{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + n_{sa} - j_{sa}^{ik} \leq j^{sa} < \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > 0 \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} \geq \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$\boldsymbol{n} \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} - j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$\mathbb{k} > 3 \wedge s \geq s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

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$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s + 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{sa} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\ )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_i} - s)!}{(D + j^{sa} - \boldsymbol{l_i} - j_{sa})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j^{ik} - j_{sa} = \boldsymbol{l_i} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_a} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} - j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, \cdots, j_{sa}^{ik}\}$

$s > \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} + \boldsymbol{n} - D - j_{sa}^{ik})} \sum_{(j_s = 2)}$$

$$\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ \ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\boldsymbol{n}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

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$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s -$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} - (\boldsymbol{n} + j_{sa} - \quad - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \geq j_{ik} \leq j^{sa} \quad {}_{a}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j \quad > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \quad + j_{sa} - \boldsymbol{n} - \quad \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa} \quad j_{sa} - 1 \wedge j_{sa}^{s} \quad {}_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s} \quad \{j_{sa}^{s}, \cdots, j_{sa} \quad j_{sa}, \cdots \quad \} \wedge$

$s \geq 3 \wedge \boldsymbol{s} = s + \mathbb{k} \quad$

$\mathbb{k}_z : z = \quad \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ \ )} \right.$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 1)}$$

$$\left. \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \right)$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-1)!\cdot(\boldsymbol{n}-1)!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(j_s-2)!}\cdot$$

$$\frac{(+j_{sa}-s)!}{(D+j^{sa}-\boldsymbol{n}-)!\cdot(\boldsymbol{n}-j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\left(\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}\right.$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=\boldsymbol{l}}^{(\ \ )}\ \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1}\ \sum_{(j=\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}^{(n_i-j_s+1)}$$

$$\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k})}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq\ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$$

$$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l} \leq\ {}_{\boldsymbol{i}}\boldsymbol{l}-1 \wedge$$

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$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \le D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \le j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}
$$

$$
\sum_{ik=j_{sa}^{ik}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

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$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\left. \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \right)$$

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$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$$\left(\sum_{k=\boldsymbol{l}}^{}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}^{j^{sa}+j_{sa}^{ik}-}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}\right.$$

$$\sum_{:=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_{ik} - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (j_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - \boldsymbol{l} - 1)!}{(j_{sa} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j_{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\left.\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} \leq \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq \boldsymbol{n} - 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - \boldsymbol{l_s} + 1 = \boldsymbol{l_s} + \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} \leq \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$\boldsymbol{n} > \boldsymbol{n} - 1 \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )}
$$

$$
\sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(\boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i + j_s + 1)}
$$

$$
\sum_{n_{is} = j_s - 1}^{n_{is} + j_s - 1} \sum_{(n_{ik} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} + 1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

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$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} \ldots +1)} \right.
$$

$$
\sum_{j_{ik} \ldots {}^{sa} + j_{sa}^{ik} - j_{sa} \ldots} \sum_{\ldots + \boldsymbol{n} - D)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{i} \ldots {}_{s} - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

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$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})}\sum_{(j_s=2)}\sum_{j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa}}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}{}^{j^{sa}+1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_{ik}-\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq {}_{\boldsymbol{i}}\boldsymbol{l} - 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} - j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa} = j_{sa} - 1 \wedge j_{sa}^{s} - j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{i}, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \ldots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = \ldots + \mathbb{k} \wedge$

$\mathbb{k}_z: \ldots \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - \boldsymbol{n} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (j^{sa} - j^{sa})!} \cdot$$

$$\frac{\boldsymbol{l} - 1)!}{j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1)!}{\boldsymbol{l_{ik}} + \boldsymbol{l_{ik}} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D - j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$$\Big((D \geq \boldsymbol{n} < \boldsymbol{n} \wedge \boldsymbol{l} \neq \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n}$$

$$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} \quad a - \boldsymbol{n} \quad \boldsymbol{a} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - \quad \leq j^{sa} \leq \quad + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} \quad + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$$

$$D + j_{sa} - \quad \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$$

$$\quad n \wedge \boldsymbol{l} \neq \quad \boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

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$\boldsymbol{l_{sa}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{n_i = \boldsymbol{n}+\mathbb{k}}^{n} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(n_i - j_s + 1)} \right.
$$

$$
\sum_{j_{ik} = j^{sa} + j_{sa}}^{(j_{sa} - \boldsymbol{l})} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}
$$

$$
\sum_{n_i = \boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n}+\mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n}+\mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

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$$\left(\sum_{k=\boldsymbol{l}}^{}\sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s+1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}+n_{sa}-1)!}{(j^{sa}-j_{ik}+1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_{ik}+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{}\sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(j_{sa} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} - s)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=} \sum_{(j_s=2)}^{(j_{ik}} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

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$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-$$

$$\Big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ {}_{i}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1\leq\boldsymbol{l}\leq\ {}_{i}\boldsymbol{l}-1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}$$

$$D+j_{sa}-\boldsymbol{n}<\boldsymbol{l_{sa}}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1)\vee$$

$$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ {}_{i}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1$$

$$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1\leq\ {}_{i}\boldsymbol{l}-1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{sa}}-j_{sa}+1>\boldsymbol{l_s}$$

$$D+j_{sa}-\boldsymbol{n}<\boldsymbol{l_{sa}}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1)\big)\wedge$$

$$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}=0\wedge$$

$$j_{sa}\leq j_{sa}^{s}-1\wedge j_{sa}^{ik}=j_{sa}^{s}-1\wedge j_{sa}^{s}\leq j_{sa}^{ik}-1\wedge$$

$$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,j_{sa}^{ik},\cdots,j_{sa}^{i}\right\}\wedge$$

$$s\geq 3\wedge s\leq s+\mathbb{k}\wedge$$

$$\mathbb{k}_z:z=1$$

$${}_{fz}S_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}$$

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$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}+\mathbb{k}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}}$$

$$\frac{(n_i - 1)}{(j_s - 2) \cdot (n_i - n_{is} + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s) \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s - \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} - \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D - \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq n - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

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$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \le j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \quad \sum_{(j^{sa}=j_{ik}+j_{sa}-\ )}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \quad \sum_{(\ -j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\ \mathbb{k}-j_{ik}+1}^{n_{is}+j_s-} \quad \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(n_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.
$$

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$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{sa} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(\boldsymbol{l_{sa}} + \boldsymbol{l} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(n_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik}-j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}-j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D+j_{sa}-\boldsymbol{n} < \boldsymbol{l_s} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa} = j_{sa}-1 \wedge j_{sa}^{s} = j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}, \ldots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \ldots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: \mathbb{k}=1 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )} \right.$$

$$\left. \sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \right)$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(j_s - \boldsymbol{l} - 1)!}{(j_s - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

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$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!(\boldsymbol{n}+j_{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}\sum_{j_{sa}^{ik}+1}^{}\sum_{+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{i}-j_s-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

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$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik},} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{\boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\left. \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot \right)
$$

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$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\Bigg(\sum_{k=\boldsymbol{l}}\sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik})}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{l}}^{n_{is}}\sum_{(n_{is}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{l}+\mathbb{k}-j_{ik}+1}^{n_{is}+\mathbb{k}-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}\sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_{ik} - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (j_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - \boldsymbol{l} - 1)!}{(j_{sa} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa} - j_{sa}^{ik} + 1\right)!}{(j_{sa} + \boldsymbol{l_{ik}} - j_{ik} - j_{sa})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\left.\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq j_{ik} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq \boldsymbol{n} - 1 \wedge$

$1 \leq j_{sa} \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} + \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} \leq \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$\boldsymbol{n} = \boldsymbol{n} + \mathbb{k} \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\ldots}^{n} \sum_{\ldots=\boldsymbol{n}+\ldots j_s+1)}^{(\ldots j_s+1)}
$$

$$
\sum_{\ldots j_{ik}+1}^{n_{is}+j_s} \sum_{(\ldots=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-\ldots)}
$$

$$
\frac{(n_i - n_{is} \ldots}{(j_s - 2) \ldots (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{\ldots_{is} - n_{ik} \ldots 1)!}{(j_{ik} - j_s - 1) \ldots (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n \ldots - n_{sa} - 1)!}{(\ldots^{a} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$\Big((D \geq \boldsymbol{n} < \ldots \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

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$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{sa}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$_{z}S_{j_s, j_{ik}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.$$

$$\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\left. \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \right.$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\Bigg(\sum_{k=\boldsymbol{l}}\sum_{(\boldsymbol{l_s}=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+j_{sa}-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{(j^{sa}=j_{sa}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(\boldsymbol{n}+\mathbb{k}+1)}$$

$$\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

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$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)}\sum_{(j_s=2)}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-1}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-j_s-1)!}{(\quad)!\cdot(n_i-\quad-j_s+1)!}\cdot$$

$$\frac{(\quad-n_{ik}-\quad)!}{(j_{ik}-\quad-1)!\cdot(\quad+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(\quad-n_{sa}-1)!}{(\quad-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}\sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-1)!\cdot(\boldsymbol{n}-1)!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_{ik}}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j_{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=1}^{(j_{ik}-1)} \sum_{(j_s=2)}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{(\ )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D+j_{sa}-\boldsymbol{n} < \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-s \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z.z=1 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)}\sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}\right.$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )}\sum_{\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - s)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg)$$

$$\Bigg(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} - \boldsymbol{l} + 2)} \sum_{(\boldsymbol{l_{sa}} + \boldsymbol{n} - D - j_{sa} + 1)}$$

$$\sum_{j_{ik} - j_s + j_{sa}^{ik} - 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik} + 1)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

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$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{(j_s=2)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum^{(n_i+j_s+1)}$$

$$\sum^{n_{is}+j_s-} \sum^{(n_{ik}+j_{ik}-j^{sa})}$$

$$\sum_{=\boldsymbol{l}}^{+1} \sum^{(\boldsymbol{n}-j^{sa}+1)}$$

$$\frac{(n_i - n_{is}}{j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{-n_{ik}-1)!}{j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(-n_{sa}-1)!}{-j_{ik}-1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg)$$

$D \geq \boldsymbol{n} < \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq {}_{i}\boldsymbol{l} - 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

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$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} \ldots j_{sa}^{ik}+2)} \sum_{(j_s \ldots}
$$

$$
\sum_{\ldots = j_s + j_{sa}^{ik}} \sum_{\ldots}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} \ldots + \boldsymbol{n} - D)
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{i} \ldots s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

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$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)} \right.
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\left. \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot \right)
$$

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$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\Bigg(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-1)}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}$$

$$\sum_{\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}$$

$$n_{[illegible]}-j_{ik}\quad(n_{ik}=j^{sa}-\mathbb{k})$$

$$\sum_{\boldsymbol{n}+\mathbb{k}-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-1)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(n_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\sum_{(j_s=2)}\quad\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_{ik} - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{sa} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (j_{sa} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{n} - \boldsymbol{l} - 1)!}{(\boldsymbol{n} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j_{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\left.\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \boldsymbol{l_{ik}} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} - j_{sa} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$\boldsymbol{n} \geq \boldsymbol{n} - 1 \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \right.
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=j_{ik}+1}^{n_{is}+j_s} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}+\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - j_s)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \right.
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (\quad - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} - s)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-\quad)} \sum_{(j_s=2)}^{\boldsymbol{l_{sa}}+j_{sa}-\mathbb{l}-j_{sa}+1} \sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{(\ \ )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

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$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D+j_{sa}-\boldsymbol{n} < \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{sa}}-j_{sa}+1 > \boldsymbol{l_s} \wedge$

$D+j_{sa}-\boldsymbol{n} < \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1)\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k}_z = 0 \wedge$

$j_{sa} \leq j_{sa}-1 \wedge j_{sa}^{ik} = j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, j_{sa}, \cdots, j_{sa}^{s}\} \wedge$

$s \geq 3 \wedge s = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 1$

$${}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\right.$$

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$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )} \left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is}}.$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s + 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}.$$

$$\frac{(n_{ik} - n_{sa} - 1)}{(j^{sa} - j_{ik} - 1)! \cdot (n + j_{ik} - n_{sa} - j^{sa})!}.$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!}.$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!}.$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}\right.$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{s}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-)!\cdot(j_{sa}+j_{sa}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{l_{sa}})!\cdot(+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}} \sum_{=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

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$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\left.\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

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$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$fz^{[illegible]} = \left(\sum_{[illegible]} \sum_{(j_{s[illegible]} - j_{sa}^{ik} + 1)}^{(\ )} \right.$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} [illegible]} \sum_{(j^{sa} = \boldsymbol{l_{ik}} + \boldsymbol{n} + j_{sa} - D - j_{sa}^{ik})}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +$$

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$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})}\sum_{(j_s=2)}\right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}\sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1}^{(}$$

$$\frac{(n_{is}-1)!}{(j_s-2)!\cdot(n_i-j_s+1)!}\cdot$$

$$\frac{(n_{is}-j_s-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}+n_{sa}-1)!}{(j^{sa}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{n}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\boldsymbol{n}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \geq D-\boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l}_{\boldsymbol{i}}\boldsymbol{l}-1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \geq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}-j^{sa} \leq \boldsymbol{n}-j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_s}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n} \leq \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge l-\boldsymbol{l_{sa}} \geq 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\{j_{sa}^{s}, \ldots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z : z=1 \Rightarrow$

GÜLDÜNYA

$$ {}_{fz}S_{j_s\,,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j^{ik}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+}^{+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

GÜLDÜNYA

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{\boldsymbol{k}=\boldsymbol{l}}^{(\quad)} \sum_{(j_s = j_{ik} \quad j_{sa}^{ik}+1)} \right.
$$

$$
\sum_{j_{ik}+\boldsymbol{n}-D}^{\boldsymbol{l_s}+j_s \quad \boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)}
$$

$$
\sum_{n_i \quad \mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}
$$

$$
\sum_{n_{ik}+j_s-j_{ik}}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\sum_{n_{sa}+\mathbb{k}-j_{ik}+1}^{} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{\boldsymbol{k}=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=2)}^{} \quad \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \right.
$$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_{sa}} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} + \boldsymbol{l_{sa}} - j_{sa}^{ik} - \boldsymbol{s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ \ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

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$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-$$

$$\left.\frac{}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j_{sa}-s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l} \leq {}_{i}\boldsymbol{l}-$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-$

$D+j_{sa}^{ik}-\boldsymbol{n} < \boldsymbol{l_{ik}} \leq D+$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq$

$\boldsymbol{s}($

$s >$

$\mathbb{k}_z : z =$

$$_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - n_{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{sa}^{ik} - \boldsymbol{l_s})! \cdot (\quad - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + \quad - \boldsymbol{l_{sa}} - s)!}{(D + \quad - \boldsymbol{n} - \boldsymbol{l}\quad)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \quad D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}}$

$1 \leq j \quad j_{ik} - j_{sa}^{ik} \quad \wedge j_s + j_{sa}^{ik} - 1 \quad j \quad j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \quad j^{sa} \leq \boldsymbol{n} \quad j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} \quad {}_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \quad + j_{sa}^{ik} \quad {}_{sa} = \boldsymbol{l_{ik}} \wedge$

$\quad + j_{sa}^{ik} \quad < \boldsymbol{l_{ik}} \leq D \quad \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \quad < n \wedge \quad \quad 0 \wedge$

$j_{sa} \leq j_{sa}^{i} \quad 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\quad \{j_{sa}^{s}, \cdots \quad a, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

GUDUMYA

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)} \right.
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ \ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+j_{ik}-\mathbb{k})}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)} \right.
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ \ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

GÜLDÜNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (\boldsymbol{n} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} - s)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l}+\boldsymbol{n}-D-j_{sa})} \sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\ )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

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$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-}\Big)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ {}_{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge$

$\boldsymbol{l_{sa}}>D+\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{n}-j_{sa}^{ik}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>=0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}\leq j_{s}-1\wedge$

$\boldsymbol{s}\colon\left\{j_{sa}^{s},\cdots,j_{sa}^{ik},\mathbb{k},j_{sa},\cdots,j_{sa}^{i}\right\}\wedge$

$s>3\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z\colon z=1\Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!}$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (n_{sa} + j_{sa}^{ik} - j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_s} - s)!}{(D + j^{sa} - \boldsymbol{l_s} - j_{sa})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j^{ik}_{sa} - j_{sa} = \wedge$

$\boldsymbol{l_{ik}} > D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, \cdots, j_{sa}^{ik}\} \wedge$

$s > \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \sum_{(j_s = 2)}$$

$$\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{\left(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}\right)}^{(\ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(\boldsymbol{l}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_{ik}}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \geq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa} \geq 1 \leq j_{ik} \leq \boldsymbol{n}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+\boldsymbol{l_{sa}}-j_{sa}^{ik} \leq j^{sa} < \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{sa}}-j_{sa}+1 \geq \boldsymbol{l} \wedge$

$\boldsymbol{l_{sa}} \geq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$\boldsymbol{n} > 3 \wedge \boldsymbol{s} < s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=1 \Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}$$

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$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}+\mathbb{k}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is} + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - j_{ik})}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s - \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$$

$$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

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$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}
$$

$$
\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} \sum_{(j^{sa} = j_{sa} + 1)}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa}$ $_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq$ $- \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} -$ $\leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq$ $+ j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}$ $= \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s$ $< \boldsymbol{l_i} \leq D +$ $+ s - \boldsymbol{n} - 1)\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge$ $= \mathbb{k} > 0 \wedge$

j_{sa} $= j_{sa}^{s} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots,$ $, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

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$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}} \sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_{s}+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}+j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge I \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq j_{ik}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 \leq \boldsymbol{l_s} \wedge \boldsymbol{l_{ik}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D-\boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa}=j_{sa}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s},\cdots,j_{sa}^{ik},\mathbb{k},j_{sa},\cdots,j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=1 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}
$$

$$
\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (\quad j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} \quad n_{ik} - 1)!}{(j_{ik} - j_s \quad 1)! \cdot (n_{is} \quad j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} \quad n_{sa} - 1)!}{(j^{sa} \quad j_{ik} - 1)! \quad n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})} \sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+2)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad \boldsymbol{n} - j^{sa})!}$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} \quad)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} \quad (j^{sa} + j_s \quad - j_{ik} - j_{sa})!}$$

$$\frac{(D + \quad - \boldsymbol{l_{sa}} \quad}{(D + j^{sa} \quad \boldsymbol{n} - \boldsymbol{l_{sa}}) \quad (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _i\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} +$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s +$ $\quad - j_{ik} \leq j$ $+ j_{sa}^{ik} - j$ $\wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}$ $\quad - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l}$ $\wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} -$ $> \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{sa}} \leq$ $+ j$ $- \boldsymbol{n}$ $\leq D + s - \boldsymbol{n}$

$(D \geq \boldsymbol{n} < n \wedge$ $_i\boldsymbol{l} \wedge \boldsymbol{l_s} < D - \boldsymbol{n}$ $1 \wedge$

$1 \leq$ $\leq j_{ik} - j_{sa}^{ik} +$ $\wedge j_s + j_{sa}$ $- 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa}$ $_{sa}^{ik} \leq j^{sa} \leq$ $+ j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} -$ $^{ik} + 1 =$ $\boldsymbol{_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D +$ $\boldsymbol{n})\Big) \wedge$

$> \boldsymbol{n}$ $\wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}
$$

$$
\sum_{j_{ik} = j_{sa}^{ik}+1}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = j_{sa}+1)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}
$$

$$
\sum_{n_i = \boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i - j_s+1)}
$$

$$
\sum_{j_{ik}+1}^{n_{is}+j_s} \sum_{(n_{ik} = \boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j_{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is}}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{s - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n - n_{sa} - 1)!}{a - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \sum_{j_{ik} = j_{sa}^{ik}+1}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = \boldsymbol{l_s} + j_{sa} - \boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l}+1)}
$$

$$
\sum_{n_i = \boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i - j_s+1)}
$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{n}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(j_{sa}^{ik}+j_{sa}^{ik}-j_{ik}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{n})!\cdot(j_{sa}^{ik}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}^{ik}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}^{ik}-\boldsymbol{n}-\boldsymbol{l_{ik}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \geq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq \boldsymbol{n}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+\boldsymbol{n}-j_{sa}^{ik} \leq j^{sa} < \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} \geq \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} \geq D+j_{sa}^{ik}-\boldsymbol{n} \wedge \boldsymbol{l} \leq D+\boldsymbol{l_{sa}}-\boldsymbol{n} \wedge$

$\boldsymbol{n} \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 1 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}-j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}-\mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge s = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=1 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

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$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=j_{sa}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s - \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)} \sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{l_{sa}}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

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$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_i})}^{(\ )}
$$

$$
\sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l} - j_{sa} + 1} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_k} - \boldsymbol{l_i})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{\boldsymbol{n}} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s)}
$$

$$
\sum_{n_{is} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{sa} + j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

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$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \le D + s - \boldsymbol{n}) \vee$

$(D \ge \boldsymbol{n} < n \wedge \boldsymbol{l} \ne {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \le D - \boldsymbol{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \le D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)) \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \le j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{j_{ik} = j_{sa}^{ik} + 1}^{(\ )} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{n} \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{n_{is} + j_s - j_{ik}} \sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

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$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s -} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s - \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge$ [illegible] $- 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j$ [illegible] $\wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z$ [illegible] $1 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad \boldsymbol{n} - j^{sa})!}$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} \quad)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} \quad (j^{sa} + j_s \quad - j_{ik} - j_{sa})!}$$

$$\frac{(D + \quad - \boldsymbol{l_{sa}} \quad}{(D + j^{sa} \quad \boldsymbol{n} - \boldsymbol{l_{sa}}) \quad (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _i\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} +$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s +$ $\quad - j_{ik} \leq j$ $+ j_{sa}^{ik} - j$ $\wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}$ $\quad - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l}$ $\wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} -$ $> \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{sa}} \leq$ $+ j$ $- \boldsymbol{n} \wedge$ $\leq D + s - \boldsymbol{n}$

$(D \geq \boldsymbol{n} < n \wedge$ $_i\boldsymbol{l} \wedge \boldsymbol{l_s} <$ $D - \boldsymbol{n}$ $1 \wedge$

$1 \leq$ $\leq j_{ik} - j_{sa}^{ik} +$ $\wedge j_s + j_{sa}$ $- 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa}$ $_{sa}^{ik} \leq j^{sa} \leq$ $+ j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} -$ $^{ik} + 1 =$ $\boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D +$ $\boldsymbol{n})\Big) \wedge$

$> \boldsymbol{n}$ $\wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}
$$

$$
\sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}
$$

$$
\sum_{n_i = \boldsymbol{n} + 1}^{n} \sum_{(n_{is} = \boldsymbol{n} + j_s + 1)}^{(\ \ j_s + 1)}
$$

$$
\sum_{j_{ik} + 1}^{n_{is} + j_s} \sum_{(n_{ik} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j \ \ k)}
$$

$$
\frac{(n_i - n_{is}}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{s - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{sa} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \ \ \boldsymbol{l} \neq \ \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} \leq D + j_{sa}^{ik} - \boldsymbol{n} \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

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$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(\ldots=2)}^{(\ldots_{ik} - j_{sa}^{ik} + 1)}
$$

$$
\sum_{\ldots = j_{sa}^{ik}+1}^{\boldsymbol{l_s} \ldots - \boldsymbol{l}} \sum_{(\ldots = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ldots)}
$$

$$
\sum_{n_i \ldots \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(\ldots + 1)}
$$

$$
\sum_{n_{i\ldots} \ldots \mathbb{k} - j_{ik} + 1}^{n \ldots j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

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$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is} + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} + 1)!}{(j_{ik} - j_s + 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$$

$$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$$

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$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s,\ldots,j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}-j_{sa}+2)} \sum_{(j_s=2)}
$$

$$
\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ \ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

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$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} \geq 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa}^{s} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \ldots, j_{sa}^{ik}, \mathbb{k}, \ldots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} \geq s + \mathbb{k} \wedge$

$\cdot z = 1$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} - \boldsymbol{l} - j_{sa}^{ik} + 2)} \sum_{(j_s = 2)}$$

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$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}} \sum_{-j^{sa}+1)}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is} + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{sa} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D - j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} - 1 \wedge j_s \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_s - j_{sa}^{ik} \leq j^{sa} \leq + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \boldsymbol{l_s} \wedge \boldsymbol{l_s} - j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} - s - \boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} - j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)} \sum_{(j_s=2)}
$$

$$
\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \left(n_{is}=n_i-\mathbb{k}-j_s+1\right)^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}}^{n_{is}+j_s-j_{ik}} \left(n_{sa}=\boldsymbol{n}-j^{sa}+j_{ik}\right)^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - \quad j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} \quad n_{ik} - 1)!}{(j_{ik} - j_s \quad 1)! \cdot (n_{is} \quad j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} \quad n_{sa} - 1)!}{(j^{sa} \quad j_{ik} - 1)! \quad n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$$
\left(\left(\quad \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \quad {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge \right.\right.
$$

$$
1 \leq j_s \leq j \quad - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge
$$

$$
j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge
$$

$$
\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge
$$

$$
\boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee
$$

$$
(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \quad {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge
$$

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$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n})\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$j_{ik}, j^{sa} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}-\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

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$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} \leq D + j_{sa}^{ik} - \boldsymbol{n} \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \sum_{(j_s = 2)}$$

$$\sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l} - j_{sa} + 1} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

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$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-$$

$$\frac{}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}-$$

$$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ {}_{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_{sa}}\leq D+j_{sa}-\boldsymbol{n}\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>$$

$$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>=0\wedge$$

$$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}$$

$$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,j_{sa}^{ik},\mathbb{k},j_{sa},\cdots,j_{sa}^{i}\right\}\wedge$$

$$s>3\wedge\boldsymbol{s}=s+$$

$$\mathbb{k}$$

$$z=1\Rightarrow$$

$${}_{fz}S_{j_s,j_{ik},j^{sa}}=\left(\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}\right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}\sum_{(j^{sa}=j_{sa}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - 1)!}{(D + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \Bigg)$$

$$\sum_{\boldsymbol{l}=1}^{\boldsymbol{l_s}-1} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

$$\sum_{j^{sa}+j_s-j_{sa}-1}^{j_{sa}-1} \sum_{(\boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{sa}+1}^{j_{sa}^{ik}} \sum_{(j^{sa} = j_{sa}+2)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

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$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\ \ )}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{j_{ik}=j_{sa}^{ik}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+2)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(}^{(}$$

$$\sum_{=\boldsymbol{n}}^{n_{is}+j_s-}\sum_{+1}^{(n_{ik}+j_{ik}-j^{sa}+1)}$$

$$\frac{(n_i-n_{is}}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(\quad-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(\quad-n_{sa}-1)!}{(\quad-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D\geq\boldsymbol{n}<\quad\boldsymbol{l}\neq\ \ _{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>=0\wedge$

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$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_{z}: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s}
$$

$$
(\boldsymbol{l_s}
$$

$$
\sum_{j_{ik}=}^{} \sum_{\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}\ (j^{sa}-}
$$

$$
\sum_{n_i=\boldsymbol{n}+}^{n} \sum_{}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{is}+j_s}^{} \sum_{}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\sum_{n_{ik}=}^{\mathbb{k}-j_{ik}+1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{ik - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

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$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{(\ )} \right.
$$

$$
\sum_{j_{ik} = j^{sa} + j_{sa}^{ik}} \sum_{(j^{sa} = j_{sa} + 1)}^{(j_{sa} + j_{sa} - \boldsymbol{l})}
$$

$$
\sum_{n_{is} = \boldsymbol{n} + \mathbb{k}}^{n_{is} + j_{ik} - j_{ik}} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_{is} + j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{ik} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{(\ )} \sum_{j_{ik} = j_{sa}^{ik} + 1}^{j^{sa} + j_{sa}^{ik} - j_{sa} - 1} \sum_{(j^{sa} = j_{sa} + 2)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})} \right.
$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa})!} \cdot$$

$$\frac{(j_s - \boldsymbol{l} - 1)!}{(j_s - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} - \boldsymbol{l_{sa}} - j_{sa} + \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\quad)} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

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$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-_{z}-j_{sa}\right)!}$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}$$

$$\left.\frac{}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})(\boldsymbol{n}+j_{sa}-$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq$ $\leq j^{sa} + j_{sa}^{ik}$ $_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l}$ $\wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa}$ $\wedge j_{sa}^{s} \leq j_{sa}^{ik}$ $1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k}$

$\mathbb{k}$ $z = 1 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik}+1)}^{(\ )} \right.$$

$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}} \sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - s)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg)$$

$$\Bigg(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=\boldsymbol{l}+1)}^{(j_{ik}-j_{sa}^{ik})} \sum_{j_{ik}=j^{sa}+1}^{(j_{sa}-\boldsymbol{l})} \sum_{\boldsymbol{l_{sa}}}^{(j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=j_{sa}+2)}^{(j_{sa}-\boldsymbol{l})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

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$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}\sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}+\mathbb{k}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_{sa}}-\boldsymbol{l_s}\leq D+j_{sa}-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{sa}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>=0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}\leq j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,j_{sa}^{ik},\mathbb{k},j_{sa},\cdots,j_{sa}^{i}\right\}\wedge$

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$s > 3 \wedge \mathbf{s} = s + \Bbbk \wedge$

$\Bbbk_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\mathbf{l}} \sum_{(j_s = j_{ik} + \mathbf{l_s} - \mathbf{l_{ik}})}^{(\;)} \right.
$$

$$
\sum_{j_{ik} = j_{sa}^{ik} + 1}^{\mathbf{l_{ik}} - \mathbf{l} + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\;)}
$$

$$
\sum_{n_i = \mathbf{n} + \Bbbk}^{n} \sum_{(n_{is} = \mathbf{n} + \Bbbk - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \mathbf{n} + \Bbbk - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \mathbf{n} + \Bbbk - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \Bbbk)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \mathbf{n} - 1)! \cdot (\mathbf{n} - j^{sa})!} \cdot
$$

$$
\frac{(\mathbf{l_s} - \mathbf{l} - 1)!}{(\mathbf{l_s} - j_s - \mathbf{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \mathbf{l_{sa}} - s)!}{(D + j^{sa} - \mathbf{n} - \mathbf{l_{sa}})! \cdot (\mathbf{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\mathbf{l}} \sum_{(j_s = j_{ik} + \mathbf{l_s} - \mathbf{l_{ik}})}^{(\;)} \sum_{j_{ik} = j_{sa}^{ik} + 1}^{\mathbf{l_{ik}} - \mathbf{l} + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik} + 1)}^{(\mathbf{l_{sa}} - \mathbf{l} + 1)} \right.
$$

$$
\sum_{n_i = \mathbf{n} + \Bbbk}^{n} \sum_{(n_{is} = \mathbf{n} + \Bbbk - j_s + 1)}^{(n_i - j_s + 1)}
$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\cdots-1)!\cdot(\boldsymbol{n}-\cdots)!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\cdots-1)!}{\cdots(j_s-2)!}\cdot$$

$$\frac{(\cdots+j_{sa}^{ik}-\cdots-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\cdots)!\cdot(j^{sa}-j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_s-\boldsymbol{l_{sa}}-s)!}{(D+j_{ik}-\boldsymbol{n}-\boldsymbol{l_s}-\cdots)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \cdots D-\boldsymbol{n}+1 \wedge$$

$$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq \cdots^{a}+j_{sa}^{ik}-j_{sa} \wedge$$

$$j_{ik}+\cdots-j_{sa}^{ik} \leq j^{\cdots} < \boldsymbol{n}+j_{sa}-s \wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 \cdots \wedge \boldsymbol{l_{sa}}+\cdots^{ik}-j_{sa} \cdots \boldsymbol{l_{ik}} \wedge$$

$$D \geq \cdots < n \wedge I = \mathbb{k} \cdots 0 \wedge$$

$$\cdots_{sa} \leq j_{sa}^{i} \cdots 1 \wedge j_{sa}^{ik} = j_s \cdots - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$$

$$\boldsymbol{s}: \{j_s^s \cdots, j_{sa}^{ik}, \mathbb{k} \cdots, j_{sa}^{i}\} \wedge$$

$$s > 3 \wedge \boldsymbol{s} \cdots + \mathbb{k} \wedge$$

$$\cdots \cdot z = 1$$

$${}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}$$

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$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_{is}-n_{ik}}{(j_{ik}-j_s}$$

$$\frac{(n_{ik}}{(j^{sa}-j_{ik}}$$

$$\frac{(n_{sa}}{(n_{sa}+j_{sa}}$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D$$

$D \geq \boldsymbol{n} < n \wedge$ $\neq$ $_{\boldsymbol{i}}\boldsymbol{l} \wedge$ $\leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik}$ $1 \wedge j_s +$ ^{ik} $1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa}$ $- j_{sa}^{ik} \leq j^{sa} \leq$ $+ j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1$ $\boldsymbol{l_s} \wedge \boldsymbol{l}$ $- j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

D $\boldsymbol{n}$ $\wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i}$ $\wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}$: $\{j_{sa}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z$: $z = 1 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{} \right.
$$

$$
\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s + 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{} \right.
$$

$$
\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(n_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j^{ik} - j_{sa} = \boldsymbol{l} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j^{ik} = j_{sa} - 1 \wedge j_{sa} < j_{sa}^{ik} - 1$

$\boldsymbol{s}: \{j_{sa}^{s}, \dots, j^{ik}, \mathbb{k}, j_{sa}, \dots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \dots \wedge$

$\mathbb{k}_z : z \dots 1 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)} \right.$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{n}+j_{sa}-\boldsymbol{l}-s)!}{(\boldsymbol{n}+j^{sa}-\boldsymbol{n}-\boldsymbol{l}-s)!\cdot(\boldsymbol{n}-j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})}\sum_{j_{ik}=j_{sa}^{ik}+1}^{j_{sa}^{ik}-\boldsymbol{l}}\sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

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$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}-j_{sa}+1}^{n_{is}+j_s-j_{sa}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\left.\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

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$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \le j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} - \boldsymbol{l} - j_{sa}^{ik} \quad} \sum_{j_s=2)} \right.
$$

$$
\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}} \sum_{j^{sa}=j_{ik}+j_{sa}-j_s}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=n_i-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{is}=n_{ik}+j_s-j_{ik}}^{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}=n_{sa}+j_{ik}-j^{sa}-\mathbb{k})}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\sum_{n_{ik}=n_{sa}+\mathbb{k}-j_{ik}+1}^{n_{sa}+\mathbb{k}-j_{ik}+1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} - \boldsymbol{l} - j_{sa}^{ik} + 2)} \sum_{(j_s=2)} \right.
$$

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$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(\boldsymbol{l}+\boldsymbol{l}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{l} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik} \quad j_{sa}^{ik}+1 \quad _s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik} \quad _s \quad -j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+ \quad =\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$\quad n \wedge I=\mathbb{k}>=0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s>3 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

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$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}
$$

$$
\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}}}^{(\quad)}
$$

$$
\sum_{n_i=} \sum_{(\quad=\boldsymbol{n}+\quad j_s+1)}^{n}
$$

$$
n_{is}+j_{\quad} \quad (n_{ik}+j_{ik}\quad -\mathbb{k})
$$

$$
\sum_{\quad \mathbb{k}-j_{ik}+1} \sum_{\quad=\boldsymbol{n}-j^{sa}+1)}
$$

$$
\frac{(n_i - \quad}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{n_{is} - n_{ik} \quad 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{i} - n_{sa} - 1)!}{{}_{sa} - j_{ik}) \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \quad \neq \quad \boldsymbol{l} \wedge \quad \boldsymbol{a} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \quad s \leq \quad - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \quad \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} \quad j_{sa} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

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$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \right.
$$

$$
\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=n_{is}+j_s-j_{ik}-j_{ik}+1} \sum_{(n_{sa}=n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_{is}-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}-n_{is}-j_s+1)!} \cdot
$$

$$
\frac{(n_{ik}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot
$$

$$
\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)! \cdot (\boldsymbol{n}-j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)! \cdot (j_s-2)!} \cdot
$$

$$
\left. \frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})! \cdot (\boldsymbol{n}+j_{sa}-j^{sa}-s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(j_{ik}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_s-\boldsymbol{l_{sa}}-s)!}{(D+j_s-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$$D\geq \boldsymbol{n}<n\wedge \boldsymbol{l}\neq {}_{\boldsymbol{i}}\boldsymbol{l}\wedge \boldsymbol{l_{sa}}<D+j_{sa}-\boldsymbol{n}\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}<\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge$$

$$D\geq 0<n\wedge I=\mathbb{k}>0\wedge$$

$$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}\leq j_{sa}^{ik}-1\wedge$$

$$\boldsymbol{s}:\{j_s^s,\ldots,j_{sa}^{ik},\mathbb{k},\ldots,j_{sa}^{i}\}\wedge$$

$$s>3\wedge \boldsymbol{s}<z+\mathbb{k}\wedge$$

$$z\cdot z=1$$

$${}_{fz}S_{j_s,j_{ik},j^{sa}}=\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}\right.$$

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$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{sa} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + \boldsymbol{n} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=j_s+j_{sa}^{ik}}^{(\ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

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$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-\boldsymbol{l}+1)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-1)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$\Big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq{}_{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j_{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1)\vee$

$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq{}_{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j_{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_{sa}}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1)\Big)\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\Bbbk>=1\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}\leq j_{sa}-1\wedge j_{sa}^{s}\leq j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\cdots,j_{sa}^{ik},\Bbbk,j_{sa},\cdots,j_{sa}^{i}\}\wedge$

$n\geq 3\wedge s=s+\Bbbk\wedge$

$\Bbbk_z:z=1\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{(\ )}$$

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$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s + 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(\boldsymbol{l} + j^{sa} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+2)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{l_{sa}}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\Big((D\geq \boldsymbol{n}<n\wedge \boldsymbol{l}\neq {}_{\boldsymbol{i}}\boldsymbol{l}\wedge \boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge$$

$$D+j_{sa}-\boldsymbol{n}<\boldsymbol{l_{sa}}\leq D+\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{n}-j_{sa}^{ik}\wedge$$

$$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_{sa}}+s-\boldsymbol{n}-j_{sa})\vee$$

$$(D\geq \boldsymbol{n}<n\wedge \boldsymbol{l}\neq {}_{\boldsymbol{i}}\boldsymbol{l}\wedge \boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$$

$$D+j_{sa}-\boldsymbol{n}<\boldsymbol{l_{sa}}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1)\vee$$

$$(D\geq \boldsymbol{n}<n\wedge \boldsymbol{l}\neq {}_{\boldsymbol{i}}\boldsymbol{l}\wedge \boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge \boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}}\wedge$$

$$D+j_{sa}-\boldsymbol{n}<\boldsymbol{l_{sa}}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1)\Big)\wedge$$

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$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_{z}: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{\boldsymbol{l}=\boldsymbol{l}}^{(\quad)} \sum_{(j_s = j_{i} \quad \boldsymbol{l}_s - \boldsymbol{l}_{ik})}
$$

$$
j^{sa} \quad j_{ik}^{ik} - j_{sa} \quad (\boldsymbol{l}_s \quad)
$$

$$
\sum_{j_{ik} = j_{sa}^{ik}+1} \quad \sum_{j^{sa} = \boldsymbol{l}_{sa} + \boldsymbol{n} - D)}
$$

$$
\quad (\quad j_s + 1)
$$

$$
\sum_{n_{i} \quad + \mathbb{k}}^{n} \quad \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}
$$

$$
j_s - j_{ik} \quad (n_{ik} + j_{ik} - j^{sa} - \mathbb{k})
$$

$$
\sum_{n_{ik} = \quad \mathbb{k} - j_{ik} + 1} \quad \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

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$$\sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-} \sum_{j^{sa}+1)}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_{is}-n_{ik}}{(j_{ik}-j_s}$$

$$\frac{(n_{ik}}{(j^{sa}-j_{ik}}$$

$$\frac{(n_{sa}}{(n_{sa}+j_{sa}}$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{+\boldsymbol{l}}$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\Big((D \geq \quad < n \wedge \boldsymbol{l} \neq \quad _{\boldsymbol{i}} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$$

$$1 \leq j_s \leq j_{ik} \quad ^{ik}_{sa}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$$

$$j_{ik} \quad j_{sa} \quad j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+ \quad > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$$

$$D+j_{sa} \quad -\boldsymbol{n} < \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1 \wedge$$

$$D+s-\boldsymbol{n} < \boldsymbol{l_i} \leq D+\boldsymbol{l_{sa}}+s-\boldsymbol{n}-j_{sa}) \vee$$

$$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \quad _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$$

$$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$$

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$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$S_{j_s, j_{sa}} = \sum_{\boldsymbol{l}} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

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$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}\sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}+\mathbb{k}-j_{sa}+1)}^{(n_{ik}+j_{sa}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\Big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\boldsymbol{l_i}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1)\vee$

$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\boldsymbol{l_i}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

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$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$j_{sa}^{s} \cdots j_{ik}^{sa} = \sum_{\boldsymbol{l_s}} \sum_{(j_{sa}^{s} \cdots + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{j_{ik} \cdots j_{sa}^{ik}+1}^{\boldsymbol{n}+j_{sa}^{ik} \cdots j_{sa}-1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

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$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}+1)}^{(n_{is}+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-1)}$$

$$\frac{(\ -n_{is}-1)!}{(\ -2)!\cdot(\ -n_{is}-j_s+1)!}\cdot$$

$$\frac{(n\ -n_{ik}-1)!}{(\ -j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j\ -j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$((D>\ n\ n\wedge\boldsymbol{l}\neq\ _{i}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge$

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$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{n} - j_{sa}^{ik} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s +$

$\mathbb{k} \cdot z = 1 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} $$

$$ \sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa} - 1} \quad \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} $$

$$ \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} $$

$$ \sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \quad \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})} $$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - j_{sa})! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - j_{sa} - \boldsymbol{l_{sa}})! \cdot (D + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{j_s - j_{sa} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

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$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} +$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - 1) \wedge$

$D < \boldsymbol{n} < n \wedge = \mathbb{k} >= \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} - j_{sa} - 1 \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \ldots j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots j_{sa}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = \ldots \mathbb{k} \wedge$

$\mathbb{k}_{z-1} = \ldots$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = 2)}$$

$$\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ )}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(j_s-\boldsymbol{l}-1)!}{(j_s-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik}+1)!}{(j_{ik}+\boldsymbol{l_{ik}}-j_s-j_{sa}^{ik}+1)!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{\ }\ \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\ \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1}\ \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

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$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - \quad)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!}$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} - s)! \cdot (\boldsymbol{n} + j_{sa} - \quad - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \quad 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + \quad - \boldsymbol{n} - 1)\big) \wedge$

$\geq \boldsymbol{n} < \quad \wedge I = \mathbb{k} > = \quad \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge \quad _{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \quad ^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$> 3 \wedge \boldsymbol{s} \quad s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}} + \boldsymbol{n} - D - j_{sa})} \sum_{(j_s = 2)}$$

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$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{sa} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(\boldsymbol{l_{ik}} + \boldsymbol{l} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - \boldsymbol{l} + 1)! \cdot (\boldsymbol{l} - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - 1)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - 1)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - 1)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

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$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} \sum_{[illegible]} \sum_{(j_s=2)}^{(\boldsymbol{l_{sa}} [illegible] j_{sa})} $$

$$ \sum_{j_{ik}=j_{[illegible]}-\boldsymbol{l_s}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{[illegible]-\boldsymbol{l}+1)} $$

$$ \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} $$

$$ \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})} $$

$$ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot $$

$$ \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot $$

$$ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot $$

$$ \frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot $$

$$ \frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot $$

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$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=j_{sa}-j_{sa}^{ik})}$$

$$\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}}^{n} \sum^{(n_{i}+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}}^{(n_{ik}+j_{ik}-j^{sa}-1)} \sum$$

$$\sum_{n_{i}+\mathbb{k}-j_{ik}}^{} \sum_{j^{sa}+1)}$$

$$\frac{(n_{is} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$(D > \quad n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

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$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s \ldots j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{(j_s=2)}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=}^{(l_s-\boldsymbol{l}+}\ \sum_{=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}}^{}$$

$$\sum_{j_{ik}=j_s}^{j_{sa}+1}\ \sum_{(j^{sa}=j_{ik}-\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

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$$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$$

$$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$$

$$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$$

$$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$$

$$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$$

$$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z : z = 1 \Rightarrow$$

$$S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = 2)}$$

$$\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})} \sum_{\left(j^{sa} = \boldsymbol{l_{ik}} + \boldsymbol{n} + j_{sa} - D - j_{sa}^{ik}\right)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

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$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)} \sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l}} \sum_{(j_{sa}^{ik}=\boldsymbol{l_s}+)} \sum_{-\boldsymbol{l}+1)} \sum_{(\boldsymbol{l_{ik}}+j_s-\boldsymbol{l}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+} \sum_{=\boldsymbol{n}+\mathbb{k}-j_s+1)}$$

$$+j_s- \quad (n_{ik}- j^{sa}-\mathbb{k})$$

$$\sum_{ik}=\boldsymbol{n}+\mathbb{k}- +1 \quad \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s -)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{ts - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(- j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

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$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$$

$$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$$

$$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$$

$$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$$

$$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$$

$$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{\boldsymbol{l}=\boldsymbol{l}} \sum_{(j_s=2)} \sum_{j_{sa}+j_{sa}} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\mathbb{k}} \sum_{D\ (j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

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$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}+\mathbb{k}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(n_{is} - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_{ik}} - \boldsymbol{l_s} - \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{sa} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

GÜLDÜNYA

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik})}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j_{sa}=j_{ik}+\boldsymbol{n}-\boldsymbol{l_{ik}})}^{(\boldsymbol{n}-j_{sa})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{\boldsymbol{n}} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_s+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}
$$

GÜLDÜNYA

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-}$$

$$\frac{(n_i}{(j_s-2)!\cdot(n_i-n_{is}}$$

$$\frac{(n_{is}-n_{ik}}{(j_{ik}-j_s)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-1)}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \boldsymbol{l_i} \wedge \boldsymbol{l} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \boldsymbol{n} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

GULDUNYA

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \right.
$$

$$
(\boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 1)
$$

$$
\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(\quad - \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}
$$

$$
(n_i - j_s +
$$

$$
\sum_{= \boldsymbol{n} + \mathbb{k}} \sum_{= \boldsymbol{n} + \mathbb{k} - j_s + 1)}
$$

$$
j_s - j_{ik} \qquad (\qquad - j^{sa} - \mathbb{k})
$$

$$
\sum_{= \boldsymbol{n} + \mathbb{k} - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - \quad)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(\quad_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(\quad - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{j_{ik} = j_{sa}^{ik} + 1}^{j^{sa} + j_{sa}^{ik} - j_{sa} - 1} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 1)}
$$

GÜLDÜMYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa})!} \cdot$$

$$\frac{(j_s - \boldsymbol{l} - 1)!}{(j_s - \boldsymbol{l} - 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} - \boldsymbol{l_{sa}} - j_{sa}^{ik} + \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+2)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

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$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-_{ik}-j_{sa}\right)!}$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}$$

$$(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})\cdot(\boldsymbol{n}+j_{sa}-_{-}s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l} \leq {}_{i}\boldsymbol{l}-$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+_{ik}-j_{sa}$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-$ $\boldsymbol{l_{ik}} \wedge$

$D+j_{sa}-\boldsymbol{n}<\boldsymbol{l_{sa}} \leq D+$ $+j_{sa}-\boldsymbol{n}-$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{}$ $j_{sa}-1 \wedge j_{sa}^{s}-$ $^{ik}-$ $\wedge$

$\boldsymbol{s}\{j_{sa}^{s},\cdots,j_{sa}^{}$ $j_{sa},\cdots,j_{}$ $\} \wedge$

$s>$ $\wedge \boldsymbol{s}=s+\mathbb{k}$

$\mathbb{k}_z: z=$ $\Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\ )}\ \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(j_{sa}^{ik} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - j_{sa})! \cdot (j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + \boldsymbol{l_s} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \geq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} + j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_s} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_s} + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D - \boldsymbol{n} + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} - \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\mathbb{k}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s + 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=\boldsymbol{l}}^{(\quad)}\ \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-}^{j_{sa}^{ik}-\boldsymbol{l}}\ \sum_{j_{ik}=j_{sa}^{ik}+}^{(\quad)}\ \sum_{isa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

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$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l} \leq \ _{\boldsymbol{i}}\boldsymbol{l}-1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D+j_{sa}-\boldsymbol{n} < \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=1 \Rightarrow$

$$_{j_z\ j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-\right.}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+$ $\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n} < \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-$ $\wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} = j_{sa}$ $\wedge j_{sa}^{s} \leq j_{sa}^{ik}-$ $\wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )} \right.$$

$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\boldsymbol{l}_s - \boldsymbol{l} - 1)!}{(\boldsymbol{l}_s - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l}_{sa})!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l}_{sa})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$$\left(\sum_{k=\boldsymbol{l}}^{(j_{sa}^{ik} - j_{sa}^{ik})} \sum_{(j_s=2)}^{} \sum_{=j^{sa}+\boldsymbol{l}_{ik}}^{} \sum_{(j^{sa}=\boldsymbol{l}_{sa}+\boldsymbol{n}-D)}^{(\boldsymbol{l}_{sa}-\boldsymbol{l})} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l}_s - \boldsymbol{l} - 1)!}{(\boldsymbol{l}_s - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l}_{ik} - \boldsymbol{l}_s - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l}_{ik} - j_{ik} - \boldsymbol{l}_s)! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

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$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}+\mathbb{k}-j_{sa}+1)}^{(n_{ik}+j_{sa}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\left.\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} + \boldsymbol{l_{sa}} - \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq {}_{i}\boldsymbol{l} - 1 \wedge$

$1 \leq j_s \leq j_{sa} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

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$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \le j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{\quad} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}} \sum_{\quad}^{(\boldsymbol{l_{sa}}+1)} \sum_{j_{ik}=j^{\quad}}^{\quad_{ik}-\boldsymbol{l_s}\ (j^{sa}=\boldsymbol{l_{sa}}} \sum_{n_i=\boldsymbol{n}+}^{n} \sum_{\quad}^{(n_i-j_s+1)} \sum_{n_{is}+j_s}^{\quad-j_s+1)} \sum_{\quad}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})} \sum_{n_{ik}=}^{\mathbb{k}-j_{ik}+1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \ge \boldsymbol{n} < n \wedge \boldsymbol{l} \ne {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \le D - \boldsymbol{n} + 1 \wedge$

$2 \le \boldsymbol{l} \le D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

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$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \le D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \le j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{\mathbb{k}z}S_{j_s, j_{ik}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{=\boldsymbol{l_{sa}} + \boldsymbol{n} + j_s^{ik} - D - j_{sa}}^{\boldsymbol{l_{ik}} + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

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$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\Bigg(\sum_{k=\boldsymbol{l}}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_{is}-n_{is}-1)!}{(j_s-2)!\cdot(n_{is}-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_s-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j_{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{(\ )}\ \sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-1}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(j_{sa}^{ik} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - j_{sa})! \cdot (j^{sa} - j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_s - \boldsymbol{l_{sa}} - s)!}{(D + j_s - \boldsymbol{n} - \boldsymbol{l_{sa}} - s)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_{ik} \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{ik}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} + j_{sa} - j_{sa}^{ik} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} - \boldsymbol{l_{sa}} \neq 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+j_{ik}+j_{sa}-\mathbb{k})}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - \quad j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} \quad _{ik} - 1)!}{(j_{ik} - j_s \quad 1)! \cdot (n_{is} \quad j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} \quad n_{sa} - 1)!}{(j^{sa} \quad _{ik} - 1)! \quad n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{sa}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{sa}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{\boldsymbol{l}=\boldsymbol{l}}^{\boldsymbol{n}} \sum_{(j_s=j_{ik}+\boldsymbol{l_{ik}})}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-1)} \sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

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$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa}$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}$

$D+j_{sa}^{ik}-\boldsymbol{n} < \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-$ $-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right)$

$s > 3 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=1 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\left(\sum_{k=\boldsymbol{l}}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\ \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\left.\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot\right)$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-1)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-D)!}\Bigg)+$$

$$\left(\sum_{k=\mathbb{k}}^{n}\sum_{(j_s=2)}^{(j_{ik}-j_{sa}+j_{sa}^{ik}-\boldsymbol{l}}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}-D-j_{sa}}^{(\ )}\sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

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$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}\sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1}\sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_{is}-j_s+1)}$$

$$\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1}^{n_{is}+j_s-j_{sa}}\sum_{(n_{is}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}+1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j_{ik}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D\geq\boldsymbol{n}<\boldsymbol{n}\wedge\boldsymbol{l}\neq{}_{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1\leq\boldsymbol{l}\leq{}_{\boldsymbol{i}}\boldsymbol{l}-1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge$

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$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$f_z S_{j_s, j_{ik}, j^{sa}} \sum_{k=\cdots}^{(\boldsymbol{l_s} - \boldsymbol{l}+1)} \sum_{\cdots}^{\cdots} \cdots 2)$$

$$\sum_{\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l} - j_{sa} + 1}^{(\ )} \sum_{\cdots}^{\cdots} \cdots$$

$$\sum_{k = \boldsymbol{l_{sa}} + \boldsymbol{n} \cdots - D - j_{sa}}^{\cdots} \sum_{\cdots}^{\cdots} \cdots - \boldsymbol{l_{ik}})$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{\cdots}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_i \cdots s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

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$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$ {}_{z}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} - \boldsymbol{l} - j_{sa}^{ik} + 2)} \sum_{(j_s = \boldsymbol{l_{sa}} + \boldsymbol{n} - D - j_{sa} + 1)} \right. $$

$$ \sum_{j_{ik} = j_s + \boldsymbol{l_{ik}} - \boldsymbol{l_s}}^{(\ )} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})} $$

$$ \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} $$

$$ \sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})} $$

$$ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot $$

$$ \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot $$

$$ \left. \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \right) \cdot $$

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$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)}\sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1}\right.$$

$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-1)}\sum_{(j^{sa}=j_{ik}+}^{}$$

$$\sum_{}^{(n_i-j_s+1)}\sum_{(n_{is}+\mathbb{k}-j_s+1)}$$

$$n_{is}-j_{ik}\quad(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})$$

$$\sum_{n_{ik}+\mathbb{k}-j_{ik}+}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{ik-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\sum_{(j_s=2)}\quad\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-j_{ik}-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{sa}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(j_{sa}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{n}-\boldsymbol{l}-1)!}{(\boldsymbol{n}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}+\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l} \leq \boldsymbol{n}-1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-\boldsymbol{l_s}+1=\boldsymbol{l_s}+\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}} \wedge$

$D+j_{sa}-\boldsymbol{n} \leq \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1 \wedge$

$\boldsymbol{n}>\boldsymbol{n}-1 \wedge I=\mathbb{k}>=0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s},\cdots,j_{sa}^{ik},\mathbb{k},j_{sa},\cdots,j_{sa}^{i}\} \wedge$

$s>3 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

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$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} - \boldsymbol{l} - j_{sa}^{ik} + 2)} \sum_{(j_s = 2)}
$$

$$
\sum_{j_{ik} = j_s + \boldsymbol{l_{ik}} - \boldsymbol{l_s}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}
$$

$$
\sum_{n_i = \boldsymbol{n}}^{n} \sum_{= \boldsymbol{n} +}^{(\quad j_s + 1)}
$$

$$
\sum_{n_{is} + j_s}^{\quad} \sum_{(n_{ik} + j_{ik} - \quad \mathbb{k})}
$$

$$
\sum_{\quad - j_{ik} + 1}^{\quad} \sum_{= \boldsymbol{n} - j^{sa} + 1)}^{}
$$

$$
\frac{(n_i - n_{is}}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{{}_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{} - n_{sa} - 1)!}{{}_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \quad \boldsymbol{l} \neq \quad {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$\boldsymbol{\quad} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

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$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)} \right.
$$

$$
\sum_{j_{ik}=\boldsymbol{n}+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\quad)} \sum_{(\quad - j_{sa}^{ik})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)} \right.
$$

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$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-}$$

$$\frac{(n_i}{(j_s-2)!\cdot(n_i-n_{is}}\cdot$$

$$\frac{(n_{is}-n_{ik}}{(j_{ik}-j_s+1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)}{(j^{sa}-j_{ik}-1)!\cdot(+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{+\boldsymbol{l}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{(j_s=2)} \sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + \boldsymbol{l} \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} - j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa} = j_{sa} - \mathbb{k} \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}, \ldots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \ldots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = \mathbb{k} + \mathbb{k} \wedge$

$\mathbb{k}_z: \mathbb{k} = 1 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)} \right.$$

$$\left. \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})} \right)$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} + \boldsymbol{l_{sa}} - s)!}{(\boldsymbol{l_{sa}} + j^{sa} - \boldsymbol{l} - j_{sa})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\left(\sum_{k=\boldsymbol{l}}^{} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\right.$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

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$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\sum_{(j_s-$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{n_i-j_{ik}}\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

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$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik},} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)} \right.
$$

$$
\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})} \sum_{(j^{sa} = \boldsymbol{l_{ik}} + \boldsymbol{n} + j_{sa} - D - j_{sa}^{ik})}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\left. \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot \right)
$$

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$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})}\sum_{(j_s=2)}\right.$$

$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_s}+j_{sa}}\sum_{(j_{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+}^{j_{sa}^{ik})}$$

$$\sum^{(n_i-j_s+1)}$$

$$\sum_{(n_{is}+\mathbb{k}-j_s+1)}$$

$$n_{is}\quad j_{ik}\qquad (n_{ik}+j_{ik}-j^{sa}-\mathbb{k})$$

$$\sum_{n_{ik}+\mathbb{k}-j_{ik}+}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(ik-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_{ik} - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (j_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - \boldsymbol{l} - 1)!}{(j_{sa} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa} - j_{sa}^{ik} + 1\right)!}{(j_{sa} + \boldsymbol{l_{ik}} - j_{ik} - j_{sa})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\left.\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq j_{ik} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq \boldsymbol{n} - 1 \wedge$

$1 \leq j_{sa} \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} + \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} \leq \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$\boldsymbol{n} = \boldsymbol{n} + \mathbb{k} \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}
$$

$$
\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik}}
$$

$$
\sum_{n_i=\boldsymbol{n}+}^{n} \sum_{\boldsymbol{n}+}^{(}
$$

$$
\sum_{n_{is}+j_s}^{} \sum_{}^{(n_{ik}+j_{ik}-}
$$

$$
\sum_{+1}^{} \sum_{=\boldsymbol{n}-j^{sa}+1)}^{}
$$

$$
\frac{(n_i - n_{is}}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{s - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n - n_{sa} - 1)!}{(a - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l_s} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

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$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{\boldsymbol{l_s}} \sum_{(j_s = j_{ik} \ldots + 1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(\ldots - \boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{\ldots} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{i} \ldots s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

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$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})}\sum_{(j_s=2)}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\ )}\sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}{}_{j^{sa}+1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s+1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}+n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_{ik}+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\ )}\sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq {}_{\boldsymbol{i}}\boldsymbol{l} - 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} - j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa} = j_{sa} - 1 \wedge j_{sa}^{s} - j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{i}, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \ldots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = \ldots + \mathbb{k} \wedge$

$\mathbb{k}_z: \ldots \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{n}-\boldsymbol{l}-1)!}{(\boldsymbol{n}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}-j_{sa}^{ik}+1)!}{(\boldsymbol{l_{ik}}+\boldsymbol{l_{sa}}-j_{sa}^{ik})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D-j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{l} < n \wedge \boldsymbol{l} \neq \boldsymbol{l_s} \leq D-\boldsymbol{n}+$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}-j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$1 \leq \leq j_{ik}-j_{sa}^{ik}+ \wedge j_s+j_{sa}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq +j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D+j_{sa}^{ik}- \leq \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1 \wedge$

$> \boldsymbol{n} \leq \wedge I=\mathbb{k}>=0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s>3 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=1 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)} \right.
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l}}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}-1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)} \right.
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_{ik}}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l}+\boldsymbol{n}-D-j_{sa})} \sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

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$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - \quad)}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{sa}} > D + \boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{n} - j_{sa}^{ik} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{\quad} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(n_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_s}-s)!}{(D+j^{sa}-\boldsymbol{l_s}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j^{ik}-j_{sa}= \wedge$

$\boldsymbol{l_{ik}} > D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}- \wedge j_{sa}^{ik}= -1 \wedge j_{sa}^{s} \leq j_s-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, \cdots, j_{sa}^{i}\}$

$s > \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z : z = 1$

$$fzS_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{sa}^{ik} - \boldsymbol{l_s})! \cdot (\boldsymbol{l_{ik}} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + \boldsymbol{l_{sa}} - \boldsymbol{l_{sa}} - s)!}{(D + \boldsymbol{l_{sa}} - \boldsymbol{n} - s)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D > D + \boldsymbol{l_{sa}} - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

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$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\ \boldsymbol{l}} \sum_{(j_s=1)} \sum_{=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})} $$

$$ \sum_{n_i=\boldsymbol{n}} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}} \sum_{+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1} $$

$$ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2 \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot $$

$$ \frac{(\quad - n_{sa} - 1)!}{(\quad - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot $$

$$ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot $$

$$ \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} $$

$\big((D \geq \quad < n \wedge \boldsymbol{l} = \ _{\boldsymbol{i}} \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} \quad j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} \quad j_{sa} \quad j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \quad = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{sa}} \quad + j_{sa} - \boldsymbol{n} \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ _{\boldsymbol{i}} \boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

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$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n})\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$S_{j_s, j_{ik},} = \sum_{k=\ {}_{\boldsymbol{i}}\boldsymbol{l}}^{(\quad)} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{\left(\boldsymbol{l_{sa}} - {}_{\boldsymbol{i}}\boldsymbol{l}+1\right)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

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$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} \le D + j_{sa}^{ik} - \boldsymbol{n} \wedge \boldsymbol{l_i} \le D + s - \boldsymbol{n} \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \le j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$\sum_{j_s, j_{ik}, j^{sa}} \sum_{k=\ _i\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}^{\left(\boldsymbol{l_{sa}} - \ _i\boldsymbol{l}+1\right)} \sum_{=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \ge \boldsymbol{n} < n \wedge \boldsymbol{l} = \ _i\boldsymbol{l} \wedge \boldsymbol{l_s} \le D - \boldsymbol{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

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$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_i} \le D + s - \boldsymbol{n}) \vee$

$(D \ge \boldsymbol{n} < n \wedge \boldsymbol{l} = \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \le D - \boldsymbol{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{sa}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge$

$\boldsymbol{l_{sa}} \le D + j_{sa} - \boldsymbol{n} \wedge \boldsymbol{l_i} \le D + s - \boldsymbol{n})) \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \le j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s,\ldots,j^{sa}} = \sum_{k=\ _{\boldsymbol{i}}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}^{\boldsymbol{l_{ik}} - \ _{\boldsymbol{i}}\boldsymbol{l}+1} \sum_{j_{ik}=j_{sa}^{ik}}^{\left(\boldsymbol{l_{sa}} - \ _{\boldsymbol{i}}\boldsymbol{l}+1\right)} \sum_{(j^{sa}=j_{sa})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

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$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} \leq D+j_{sa}^{ik}-\boldsymbol{n} \wedge \boldsymbol{l_i} \leq D+s-\boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} = j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$f_{j_s,j_{ik},j^{sa}} = \sum_{k=\ {}_{\boldsymbol{i}}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\ {}_{\boldsymbol{i}}\boldsymbol{l}-j_{sa}+1} \sum_{j_{ik}=j_{sa}^{ik}}^{(\ )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{n} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_{ik}+1)} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}+1)!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

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$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{n} - j_{sa}^{ik} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{sa}} > D + \boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{n} - j_{sa}^{ik}\Big) \wedge$

$\boldsymbol{n} > \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ \ )} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{\left(\boldsymbol{l_{sa}}-\ {}_{i}\boldsymbol{l}+1\right)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot
$$

$$
\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-\ \ -j^{sa})!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-\ \ )!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\ \ \right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot
$$

$$
\frac{(D-j_{sa}-\boldsymbol{l_{sa}}-s)!}{(\ \ +j^{sa}-\boldsymbol{n}-\ \ )!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}
$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n} < \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1 \wedge$

$D+s-\boldsymbol{n} < \boldsymbol{l_i} \leq D+\boldsymbol{l_{sa}}+s-\boldsymbol{n}-j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s = \boldsymbol{l_{sa}} \wedge$

$D+j_{sa}-\boldsymbol{n} < \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1)\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} = j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

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$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ \ )} \sum_{(j_s=}
$$

$$
\left(\boldsymbol{l}_{\ \ {}_{i}\boldsymbol{l}+1}\right)
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{\boldsymbol{l}_{sa}-D)}
$$

$$
{}^{(n_i - j_{ik}\ \ )} \quad {}^{n_{ik}+j_{ik}-j\ \ \mathbb{k}}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{\ \ +1)} \sum_{=\boldsymbol{n}-j^{sa}+1}
$$

$$
\frac{n_i - n_{ik} -}{-2)! \cdot \ \ - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{\ \ } - n_{sa} - 1)!}{(\ \ - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$\Big((D \geq \ \ < n \wedge \boldsymbol{l} = \ \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \ \ > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

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$\boldsymbol{l_{sa}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_s - s = \boldsymbol{l_s} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{sa}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge$

$\boldsymbol{l_{sa}} > D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \ >= 0 \wedge$

$j_{sa} \leq j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}, j_{sa}, \cdots, j_{sa}\} \wedge$

$s > 0 \wedge = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 =$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k= \ _{\boldsymbol{i}}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}$$

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$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\ {}_{i}\boldsymbol{l}+1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{\left(\boldsymbol{l_{sa}}-\ {}_{i}\boldsymbol{l}+1\right)} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(\quad-1)!}{(n_{\quad}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{ik}+1)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}+1)!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\quad-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+\quad-\boldsymbol{l_{sa}}-s)!}{(\quad+j^{sa}-\quad-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_{s}\leq j_{ik}-j_{sa}^{ik}+\quad\wedge j_s+j_{sa}^{ik}-1\quad\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\quad\leq \boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-\quad+1>\boldsymbol{l_s}\wedge\quad+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge$

$D+j_{sa}^{ik}-\quad\leq\boldsymbol{l_{ik}}\leq D\quad\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1\wedge$

$D+\quad\boldsymbol{n}<\boldsymbol{l_i}\quad\boldsymbol{l_{sa}}+s-\boldsymbol{n}-j_{sa})\vee$

$(D\geq\boldsymbol{n}<\quad\wedge\boldsymbol{l}=\ {}_{i}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$\quad\leq j_{\quad}\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+j_{sa}-\boldsymbol{n}<\boldsymbol{l_{sa}}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1)\Big)\wedge$

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$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_s}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_i}-j_{sa}+1} \sum_{(\ )}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(\ )} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2 \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \boldsymbol{l_i} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{i} + j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{sa}^{ik} \leq j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

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$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{\boldsymbol{l}_{\boldsymbol{i}}} \sum_{(j_s=1)}^{(\ldots)}
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j\ldots)}^{(\boldsymbol{l}\ldots j_{sa}-\boldsymbol{l}_{\boldsymbol{i}}-j\ldots+1)} \sum_{\boldsymbol{l}_{ik}+\boldsymbol{n}+j_{sa}-D-j\ldots}
$$

$$
\sum_{n_{i\ldots}+\mathbb{k}}^{n} \sum_{(n_{ik}=\ldots-j_{ik}+1)}^{\ldots j_{ik}+1)} \sum_{n_{sa}\ldots-j^{sa}+1}^{\ldots+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - \ldots)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j\ldots)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \boldsymbol{l_{sa}} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

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$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\ \boldsymbol{i}}^{(\ )} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}}
$$

$$
\frac{(n_i - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{n} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=\ \boldsymbol{i}}^{(\ )} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_{sa}} - \ \boldsymbol{i}\boldsymbol{l}+1)} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot (j^{sa} - j_{sa})!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right)
$$

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$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, \ldots, a} = \left(\sum_{k={}_{\boldsymbol{i}}\boldsymbol{l}}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{(\ )} \sum_{(j^{sa}=j_{sa})}^{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k={}_{\boldsymbol{i}}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}^{\left(\boldsymbol{l_{sa}} - {}_{\boldsymbol{i}}\boldsymbol{l}+1\right)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

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$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}+1)!\cdot(j_{ik}-j$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$\Big((D\geq \boldsymbol{n}<n\wedge \boldsymbol{l}=\ _{\boldsymbol{i}}\boldsymbol{l}\wedge \boldsymbol{l_{sa}}\leq D+j_{sa}-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}$ $\boldsymbol{l_{ik}}\big)\vee$

$(D\geq \boldsymbol{n}<n\wedge \boldsymbol{l}=\ _{\boldsymbol{i}}\boldsymbol{l}\wedge \boldsymbol{l_{sa}}\leq D+j_{sa}$ $\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}$ $j^{sa}+j_{sa}^{ik}-j$ $\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}$ $_{sa}-s\big)\big)\wedge$

$D\geq \boldsymbol{n}<n\wedge I=\mathbb{k}>=0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}$ $j_{sa}-1\wedge j_{sa}^{s}$ $_{sa}^{ik}-$ $\wedge$

$\boldsymbol{s}\{j_{sa}^{s},\cdots,j_{sa}^{t}$ $j_{sa},\cdots,$ $\}\wedge$

$s>$ $\wedge \boldsymbol{s}=s+\mathbb{k}$

$\mathbb{k}_z: z=$ $\Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}}=\left(\sum_{k=\ _{\boldsymbol{i}}\boldsymbol{l}}^{(\ )}\sum_{(j_s=1)}\sum_{j_{ik}=j_{sa}^{ik}}^{(\ )}\sum_{(j^{sa}=j_{sa})}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)}\sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

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$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}-s}\Bigg)+$$

$$\left(\sum_{k=\ \boldsymbol{i}\boldsymbol{l}}^{(\ )}\sum_{(j_s=1)}^{\boldsymbol{l_{ik}}-\ \boldsymbol{i}\boldsymbol{l}+1}\sum_{\ ik}^{\left(\ a-\ \boldsymbol{i}\boldsymbol{l}+1\right)}\sum_{(j^{sa}\ \ sa+1)}\right.$$

$$\sum_{n_i=\boldsymbol{n}}^{n}\sum_{\mathbb{k}-j_{ik}+1}^{(n_i-\ \ 1)}\sum_{a=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}\ \ -\mathbb{k}}$$

$$\frac{(n_i-n_{ik}}{\ ik}-2)!\ (n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(\ -n_{sa}\ \ 1)!}{\ sa}-j_{ik}-1)!\ n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(\ _{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}+1)!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\ _{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l}\ \ \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j\ \ - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$\ + j_{sa}\ \ _{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\colon \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

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$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\ \boldsymbol{i}}^{(\ )} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}}^{n_{ik}+j_{ik}-j^{sa}} \sum_{-j^{sa}+1}
$$

$$
\frac{(n_i \quad -1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} \quad +1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} \quad -1)!}{(j^{sa} - j_{ik} \quad)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} \quad -1)!}{(n_{sa} + j^{sa} \quad \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\left. \frac{(D + j_{sa} \quad \boldsymbol{a} - s)!}{(D + j_{sa} \quad \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=\ \boldsymbol{i}}^{(\ )} \sum_{=1)} \sum_{j_{ik}=j_{sa}^{ik}+1}^{+j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right)
$$

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$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, \ldots, a} = \left(\sum_{k={}_{\boldsymbol{i}}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{(\ )} \sum_{(j^{sa}=j_{sa})}^{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k={}_{\boldsymbol{i}}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}^{\boldsymbol{l_{ik}} - {}_{\boldsymbol{i}}\boldsymbol{l}+1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(\ )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

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$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}+1)!\cdot(j_{ik}-j$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-{}^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D+j_{sa}-\boldsymbol{n} < \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1$ $_{sa}=$ $^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}$

$s > 3 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z$ $1 \Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\ {}_{\boldsymbol{i}}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

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$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!}\Bigg) +$$

$$\Bigg(\sum_{k=\ _{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{\left(\boldsymbol{l_{sa}}-\ _{i}\boldsymbol{l}+1\right)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}}^{n_{ik}+j_{ik}-j^{sa}} {}_{-j^{sa}+1}$$

$$\frac{(n_i \quad -1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} \quad +1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} \quad 1)!}{(j^{sa} - j_{ik} \quad (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa}}{{}_{a} + j^{s} \quad \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l} \quad + j_{sa}^{ik} - \quad - j_{sa})!}{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - {}^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D + \quad - \boldsymbol{l_{sa}} - s)!}{(D \quad j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ _{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \quad + 1 \wedge$

$1 \leq j_{\quad} \leq j_{ik} - j_{sa}^{ik} + \quad \wedge j_s + j_{sa}^{ik} - 1 \quad \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \quad {}^{sa} \leq \boldsymbol{n} \quad {}_{sa} - s \wedge$

$\boldsymbol{l_{ik}} \quad {}_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \quad + j_{sa}^{ik} - \quad {}_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \quad \leq \boldsymbol{l_{ik}} \leq D \quad \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \quad < n \wedge I \quad \geq 0 \wedge$

$j_{sa} \leq j_{sa}^{i} \quad \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\left\{j_{sa}^{s} \quad {}_{sa}^{i}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot
$$

$$
\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot
$$

$$
\frac{(\quad -1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\left.\frac{(D+j_{sa}-\quad)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\quad -s)!}\right) +
$$

$$
\left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)} \sum_{j_{ik}=\quad +j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{\left(\boldsymbol{l_{sa}}-\ {}_{i}\boldsymbol{l}+1\right)} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot
$$

$$
\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}+1)!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot
$$

$$
\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)
$$

$$
\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge
$$

$$
1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge
$$

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$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{sa}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$fz_{j_{ik}, j^{sa}} = \left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +$$

$$\left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\ {}_{i}\boldsymbol{l}+1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{\left(\boldsymbol{l_{sa}}-\ {}_{i}\boldsymbol{l}+1\right)} \right.$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}-1)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}+1)!\cdot(j_{ik}-j^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}-j_{sa}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j^{ik}-\boldsymbol{l_{sa}}-j_{sa})!}\cdot$$

$$\left.\frac{(\boldsymbol{n}+j_{sa}-j_{sa}-s)!}{(D+j^{sa}-\boldsymbol{n}-j_{sa})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_{sa}-j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s}+\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} \leq \boldsymbol{l_{ik}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n}-\boldsymbol{l_{ik}} \leq D-\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \boldsymbol{n} >= 0 \wedge$

$j_{sa} \leq j_{sa}-1 \wedge j_{sa}^{ik} = j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{s} \leq j_{sa}, \cdots, j_{sa}\} \wedge$

$s \geq s \wedge \boldsymbol{n} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 =$

$${}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k={}_{i}\boldsymbol{l}} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

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$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\quad - s)!}\Bigg)$$

$$\left(\sum_{k=\ \boldsymbol{i}\boldsymbol{l}}^{(\ )} \sum_{\boldsymbol{l_{sa}}+}^{+1} \sum_{j_{ik}\ +\boldsymbol{n}+j_{sa}^{ik}}^{(\ )} {}_{j_{sa}\,(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \right.$$

$$\sum_{\ =\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\ \mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(\quad - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\left.\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\right)$$

$D \geq \boldsymbol{n} < \quad \wedge \boldsymbol{l} = \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

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$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_{z}: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=\ )}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{(\ )} \sum_{(\ =j_{sa})}^{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - \quad)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{\quad - n_{sa} - 1)!}{j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(\quad j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{\left(\boldsymbol{l_{ik}}+j_{sa}-\ {}_{i}\boldsymbol{l}-j_{sa}^{ik}+1\right)} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}+1)!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n} < \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-s \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} = j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}-1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$j_s, j_{ik}, j^{sa} = \left(\sum_{k=\ {}_{\boldsymbol{i}}\boldsymbol{l}}^{(\ )}\sum_{(j_s=1)}\sum_{j_{ik}=j_{sa}^{ik}}^{(\ )}\sum_{(j^{sa}=j_{sa})}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)}\sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}-s)!}\right)+$$

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$$\left(\sum_{k=\ _{i}\boldsymbol{l}}^{(\ )}\sum_{(j_s=1)}^{\boldsymbol{l_{ik}}-\ _{i}\boldsymbol{l}+1}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\ )}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)}\sum_{n_{sa}=\boldsymbol{n}-j^{s}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}$$

$$\frac{(n_{ik}-n_{s}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-j^{sa})!}\cdot$$

$$\frac{(n_{i}-1)!}{(n_{ik}+j_{ik}-j^{sa}-\boldsymbol{n}-\mathbb{k})!\cdot(\boldsymbol{n}-j^{sa})!}$$

$$\frac{(n_{ik}-\boldsymbol{l_s}-1)!}{(n_{ik}-j_{ik}-\boldsymbol{l_s}+1)!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D+n_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+n_{sa}-j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ _{i}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s = \boldsymbol{l_{sa}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n} < \boldsymbol{l_{ik}} < D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1\big) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ _{i}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} > D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1\big)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} = j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

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$s > 3 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z : z = 1 \Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k={}_i\boldsymbol{l}}^{()} \sum_{(j_s=1)}^{()} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-{}_i\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()} \sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk-j^{sa}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk} \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!} \cdot \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot \frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!} \cdot \frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}+1)!\cdot(j_{ik}-j_{sa}^{ik})!} \cdot \frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!} $$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_i\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_s + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{sa}} > D + j_s + j_{sa} - \boldsymbol{n} - j_{sa}^{ik} \wedge$

$2 \leq \boldsymbol{n} < n \wedge I = \Bbbk >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \Bbbk, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

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$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}}^{\left(\boldsymbol{l_{sa}} - \ {}_{i}\boldsymbol{l}+1\right)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - \ldots}{(j_{ik}-2)! \cdot (\ldots - n_{ik} - \ldots + 1)!} \cdot
$$

$$
\frac{(n_{ik} - \ldots - 1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik} \ldots - j_{ik} - n_{sa} - \ldots)!} \cdot
$$

$$
\frac{(n_{sa} - \ldots}{(n_{sa} \ldots - \boldsymbol{n} \ldots - j^{sa})!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_s \ldots - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_s \ldots - j^{sa} - \ldots\right)! \cdot (j^{sa} - j_{sa})!} \cdot
$$

$$
\frac{(D + j \ldots - \boldsymbol{l_{sa}} - s)!}{(D + j \ldots - \boldsymbol{n} - \ldots)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \ldots D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} \ldots \leq j_{ik} \leq \ldots^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \ldots \leq j^{sa} \leq \ldots + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l} \ldots \boldsymbol{l_{sa}} + j_s \ldots - j \ldots \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{sa}} > \ldots + \boldsymbol{l_s} + j_{sa} - \boldsymbol{l} \ldots - 1) \vee$

$(D \geq \boldsymbol{n} < n \ldots \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \ldots \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq \ldots \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \ldots \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{sa}} \ldots + 1 > \boldsymbol{l_s} \wedge$

$\boldsymbol{l_{sa}} > D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

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$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_{z}: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ \ )} \sum_{(j_s=}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-1}^{\boldsymbol{l_{ik}}-\ {}_{i}\boldsymbol{l}+1} \quad \sum_{\left(\boldsymbol{l_{sa}}-\ {}_{i}\boldsymbol{l}+1\right)}^{\boldsymbol{l_{sa}}-D)}
$$

$$
\sum_{n_i=\boldsymbol{n}+1}^{n} \quad \sum_{j_{ik}+1)}^{(n_i-j_{ik}-)} \quad \sum_{=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-)\ \mathbb{k}}
$$

$$
\frac{n_i - n_{ik}}{-2)!\ n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(j_{ik} - 1)!\ n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \quad < n \wedge \boldsymbol{l} \quad \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$+ j \quad j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} \leq D + j_{sa}^{ik} - \boldsymbol{n} \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

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$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{\boldsymbol{l}_i} \sum_{(j_s=1)}^{(\ldots)}
$$

$$
\sum_{j_{ik}=j^{sa}-\boldsymbol{l}_{ik}-\boldsymbol{l}_{sa}}^{(\boldsymbol{l}_{sa}-\boldsymbol{l}_i+1)} \sum_{(j^{sa}=j_{sa}+\ldots)}^{\ldots}
$$

$$
\sum_{n_{ik}=n_{sa}+\mathbb{k}}^{n} \sum_{(n_{ik}=\ldots-j_{ik}+1)}^{(\ldots-j_{ik}+1)} \sum_{n_{sa}=\ldots-j^{sa}+1}^{\ldots+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - \ldots)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l}_{ik} - \boldsymbol{l}_s - j_{sa}^{ik} + 1)!}{(\boldsymbol{l}_{ik} - j_{ik} - \boldsymbol{l}_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l}_{sa} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l}_{sa})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \ldots \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq \ldots j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \ldots \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l}_{ik} \ldots + 1 > \boldsymbol{l}_s \wedge \boldsymbol{l}_{sa} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l}_{ik} \wedge$

$\boldsymbol{l}_{ik} \leq D + j_{sa}^{ik} - \boldsymbol{n} \wedge \boldsymbol{l}_i \leq D + s - \boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

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$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_{z}: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ \ )} \sum_{(j_s=}
$$

$$
\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\ {}_{i}\boldsymbol{l}-j_{sa}+1} \sum_{j_{ik}+}^{(\ \ )} {}^{-\boldsymbol{l_{ik}})}
$$

$$
\sum_{n_i=\boldsymbol{n}+1}^{n} \sum_{j_{ik}+1)}^{(n_i-j_{ik}\ \ )} \sum_{=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-\ \ \ \ \mathbb{k}}
$$

$$
\frac{n_i - n_{ik}}{\ \ - 2)!\ \ n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(\ \ - n_{sa} - 1)!}{(\ \ - j_{ik} - 1)!\ \ n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{\left(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1\right)! \cdot \left(j_{ik} - j_s - j_{sa}^{ik}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \ \ < n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \ \ {}_{sa} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} \ \ j_{sa}^{ik} + 1 \ \ _s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} \ \ _s - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \ \ > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$\ \ \ \ n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\ _{\boldsymbol{i}}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} -}{(j_{ik}-2)! \cdot (n_i - n_{ik} - k + 1)!}
$$

$$
\frac{(n_{ik} - sa - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - a)!} \cdot
$$

$$
\frac{(n_{sa} -)!}{(n_{sa} - j^{sa} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\left. \frac{(D + - \boldsymbol{l_{sa}} - s)!}{(D - a - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=\ _{\boldsymbol{i}}\boldsymbol{l}}^{(\ )} \sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}} \sum_{(j^{sa}=j_{sa}+1)}^{\left(\boldsymbol{l_{sa}} -\ _{\boldsymbol{i}}\boldsymbol{l}+1\right)} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right)
$$

$$
D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge
$$

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$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \le j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} \left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(\ )} \sum_{(j^{sa}=j_{sa})} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(\quad)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{s} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\ {}_{i}\boldsymbol{l}-j_{sa}+1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(\ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\left. \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \right.
$$

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$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}+1)!\cdot(j_{ik}-j$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}$ $\wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\ {}_{\boldsymbol{i}}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}-s)!}\right) +$$

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$$\left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )}\sum_{(j_s=1)}^{\boldsymbol{l_{ik}}-\ {}_{i}\boldsymbol{l}+1}\sum_{j_{ik}=j_{sa}^{ik}+1}^{(\ )}\sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)}\sum_{n_{sa}=\boldsymbol{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{ik}+j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik}+\boldsymbol{l_s}+1)!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D+\boldsymbol{l_{sa}}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}-1)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n} < \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1 \wedge$

$D+s-\boldsymbol{n} < \boldsymbol{l_i} \leq D+j_{sa}+s-\boldsymbol{n}-j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s = \boldsymbol{l_{sa}} \wedge$

$D+j_{sa}-\boldsymbol{n} < \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1)\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} = j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

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$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \Bbbk, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 1 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k={}_i\boldsymbol{l}}^{(\;)} \sum_{(j_s=\text{[illegible]}}^{\text{[illegible]}} \sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}\text{[illegible]}}^{\text{[illegible]}} \sum_{\text{[illegible]}-\boldsymbol{l_{sa}}\text{[illegible]}-D)}^{(\boldsymbol{l_s}\text{[illegible]}{}_i\boldsymbol{l}+1)} \sum_{n_i=\boldsymbol{n}+\text{[illegible]}}^{n} \sum_{\text{[illegible]}j_{ik}+1)}^{(n_i-j_{ik}\text{[illegible]})} \sum_{\text{[illegible]}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-\text{[illegible]}\Bbbk} $$

$$ \frac{(n_i - n_{ik}\text{[illegible]}}{\text{[illegible]} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot $$

$$ \frac{(\text{[illegible]} - n_{sa} - 1)!}{(\text{[illegible]} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot $$

$$ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot $$

$$ \frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot $$

$$ \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} $$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_i\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} - j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_i\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

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$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}-D-j_{sa}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_i}-j_{sa}-1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

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$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$ {}_{fz}S_{j_s, \ldots, j_{sa}} = \sum_{k=\ {}_{i}\boldsymbol{l}} \sum_{(j_s=1)}^{(\ )} $$

$$ \sum_{j_{ik}=j^{sa}-\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}} \sum_{(j^{sa}-\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}^{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)} $$

$$ \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}+\mathbb{k}-j_{ik}+1)}^{(\boldsymbol{n}-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} $$

$$ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot $$

$$ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot $$

$$ \frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot $$

$$ \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} $$

$D \ldots \wedge n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

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$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)} \sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{\left(\boldsymbol{l_{sa}} - \ {}_{i}\boldsymbol{l}+1\right)} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

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$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}+1)!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}=\ {}_{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge$

$D+j_{sa}^{ik}-\boldsymbol{n}<\boldsymbol{l_{ik}}\leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>=0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}\leq j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,j_{sa}^{ik},\mathbb{k},j_{sa},\cdots,j_{sa}^{i}\right\}\wedge$

$s>3\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=1\Rightarrow$

$${}_{fz}S_{j_{sa},j_{ik},j^{sa}}=\left(\sum_{k=\ {}_{\boldsymbol{i}}\boldsymbol{l}}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)}\sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}-s)!}\right)+$$

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$$\left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )}\sum_{(j_s=1)}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\ {}_{i}\boldsymbol{l}-j_{sa}+1}\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{(\ )}\sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)}\ \sum_{n_{sa}=\boldsymbol{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-\ j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-\ )!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(n_{ik}-\boldsymbol{l_s}-\ )!}{(n_{ik}-j_{ik}-\boldsymbol{l_s}+1)!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D+\boldsymbol{l_{sa}}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \ > \boldsymbol{l_s} \wedge \boldsymbol{l_{ik}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l} - 1 \wedge$

$D \geq \ < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - \ \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{ \ , j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i} \} \wedge$

$s > 3 \wedge \boldsymbol{s} = \ + \mathbb{k} \wedge$

$\Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\right.$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)}\ \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-1)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\left(\sum_{\boldsymbol{l}}^{(\ )}\ \sum_{(j_s=1)}^{\left(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)}\ \sum_{j_{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)}\ \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}+1)!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$$D\geq\boldsymbol{n}<\ \wedge\boldsymbol{l}=\ {}_{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge$$

$$D+j_{sa}^{ik}-\boldsymbol{n}<\boldsymbol{l_{ik}}\leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1\wedge$$

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$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_{z}: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{n} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{} \sum_{(\ =j_{sa})}^{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - \quad)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{{}_{ik} - n_{sa} - 1)!}{{}^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(\quad j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{n} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\ {}_{i}\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

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$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{\left(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}+1\right)!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$\Big((D\geq \boldsymbol{n}<n\wedge \boldsymbol{l}=\ {}_{\boldsymbol{i}}\boldsymbol{l}\wedge \boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+j_{sa}^{ik}-\boldsymbol{n}<\boldsymbol{l_{ik}}\leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1\Big)\vee$

$(D\geq \boldsymbol{n}<n\wedge \boldsymbol{l}=\ {}_{\boldsymbol{i}}\boldsymbol{l}\wedge \boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge$

$\boldsymbol{l_{ik}}>D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1\Big)\wedge$

$D\geq \boldsymbol{n}<n\wedge I=\mathbb{k}>=0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{s}=j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,j_{sa}^{\mathbb{k}},j_{sa},\cdots,j_{sa}\right\}\wedge$

$s>3\wedge \boldsymbol{s}=s+\mathbb{k}$

$\mathbb{k}_z: z=1\Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\ {}_{\boldsymbol{i}}\boldsymbol{l}}^{(\ )}\sum_{(j_s=1)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\ {}_{\boldsymbol{i}}\boldsymbol{l}+1}\ \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)}\ \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

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$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_{sa} - s)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot (\boldsymbol{l_{sa}} - j_{sa}^{ik})!}$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - \boldsymbol{l_{sa}} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} - 1 < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
\sum_{n_i=\boldsymbol{n}+s}^{n} \sum_{(n_{is}=\boldsymbol{n}+s-j_s+1)}^{(n_i-j_s+1)}
\sum_{n_{ik}=\boldsymbol{n}+s-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 2)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_i\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_i\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

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$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s \ \ j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ \ )}
\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = j_{sa} + 1)}^{(\boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 1)}
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}\ldots}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D+s-\boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D+s-\boldsymbol{n})\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \ldots > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}^{s}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \ldots, j_{sa}, \cdots, j_{sa}^{s}\} \wedge$

$s > 4 \wedge \ldots = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=1 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} + \boldsymbol{n} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (j^{sa} - j^{sa})!} \cdot$$

$$\frac{(j_s - \boldsymbol{l} - 1)!}{(j_s - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} - \boldsymbol{l_{sa}} - j_{sa} + \boldsymbol{l})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{\boldsymbol{l}}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+2)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

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$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-_{ik}-j_{sa}\right)!}$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}$$

$$\frac{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}}\cdot\frac{(\boldsymbol{n}+j_{sa}-}{(\boldsymbol{n}+j_{sa}-}$$

$$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ {}_{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>$$

$$\boldsymbol{l_{sa}}\leq D+j_{sa}-\boldsymbol{n}\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$$

$$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$$

$$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1$$

$$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,j_{sa}^{ik},\cdots,\ ,\cdots,j_{sa}^{i}\right\}\wedge$$

$$s\ldots4\wedge\boldsymbol{s}=\ +\mathbb{k}\wedge$$

$$\mathbb{k}_z;z=1\Rightarrow$$

$${}_{fz}S_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ \ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}}\ \sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l})! \cdot (j^{sa} - j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} - s)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\quad)} \sum_{(j_{ik}=j_{ik}-j_{sa}^{ik}+1)}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

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$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} \leq D+j_{sa}^{ik}-\boldsymbol{n} \wedge \boldsymbol{l_i} \leq D+s-\boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} \leq j$ $-1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=j_{sa}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-j_{sa})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}+1)}\ \sum_{(j_s=2)}^{(\ \ +1)}\ \sum_{j_{ik}=\boldsymbol{n}+\mathbb{k}+j_{sa}^{ik}-j_s}^{(\ \ +1)}\ \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\ \ +1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

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$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_i} \leq D+s-\boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{sa}}-j_{sa}+1 > \boldsymbol{l_s} \wedge$

$\boldsymbol{l_{sa}} \leq D+j_{sa}-\boldsymbol{n} \wedge \boldsymbol{l_i} \leq D+s-\boldsymbol{n})\Big)$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s+1 \wedge$

$\mathbb{k}_z: z = 1 =$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - \boldsymbol{l} + 1)! \cdot (\boldsymbol{l} - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_s + 1)!}{(j_s + \boldsymbol{l_{ik}} - \boldsymbol{l} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (\boldsymbol{l} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} - s)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{\boldsymbol{l}=\boldsymbol{l}}^{\boldsymbol{l}+1} \sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

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$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\Big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ {}_{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\vee$

$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ {}_{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}}\wedge$

$\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\Big)\wedge$

$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ {}_{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}}\wedge$

$D+\boldsymbol{l_s}-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1)\Big)\wedge$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}=\mathbb{k}>0\wedge$

$j_{sa}^{s}=j_{sa}^{s}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}\leq j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,j_{sa}^{ik},\cdots,\mathbb{k},j_{sa},\cdots,j_{sa}^{i}\right\}\wedge$

$s>4\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=1\Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}
$$

$$
\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \quad \sum_{(j^{sa}=j_{ik}+j_{sa}-j}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+}^{+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_i - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{sa} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$$
(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge
$$

$$
1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge
$$

$$
j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge
$$

$$
j_{ik} - j^{ik}_{sa} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee
$$

$$
(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge
$$

$$
1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge
$$

$$
j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge
$$

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$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s \ldots j_{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )}
$$

$$
\sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

GÜLDÜNYA

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D+s-\boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D+s-\boldsymbol{n})\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \quad > 0 \wedge$

$j_{sa}^{i} \leq j_{sa}^{ik} < j_s - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, j_{sa}, \cdots, j_s - 2\} \wedge$

$s > 4 \wedge \quad = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik}+1)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{n}-\boldsymbol{l}-1)!}{(\boldsymbol{n}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}-\boldsymbol{l_{sa}}-j_{sa}^{ik}+\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D-j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \boldsymbol{l_s} \leq D-\boldsymbol{n}+$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s-j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa}+\boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+\boldsymbol{l_{sa}}=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}-j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{sa}} \leq \boldsymbol{n}+j_{sa}-\boldsymbol{l_i} \leq D+s-\boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < \boldsymbol{l}=\mathbb{k}>0 \wedge$

$<j^i-1 \wedge j_{sa}^{ik}<j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s>4 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=1 \Rightarrow$

GÜDÜMYA

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )}
$$

$$
\sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = n_i - \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{is} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{sa} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} \leq D + j_{sa}^{ik} - \boldsymbol{n} \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

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$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \le j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i} \right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik} - j_{sa}^{ik})} \sum_{(j_s=2)}
$$

$$
\sum_{j_{ik}=j_{sa}}^{\boldsymbol{l_s} + j_{sa}^{ik} -} \sum_{(j^{sa} = j_{ik} + j_{sa} -}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik}=}^{n_{is} + j_s - \mathbb{k} - j_{ik} + 1} \sum_{(n_{sa}=\boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(n_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \sum_{(j_s=2)} \sum_{j_{ik}=\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l} + 1}^{\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l} - j_{sa} + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}
$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} + j^{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} + j_{sa} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l} - 1)!}{(\boldsymbol{l} - j_s - \boldsymbol{l}_s + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l}_{\boldsymbol{s}} + \boldsymbol{l_{ik}} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} - j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{sa}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge$

$\boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n})\Big) \wedge$

GULDUNYA

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(\ldots=2)}^{(\ldots_{ik} - j_{sa}^{ik} + 1)}
$$

$$
\sum_{\ldots - j_{sa}^{ik} + 1}^{\boldsymbol{l_s} + \ldots - \boldsymbol{l}} \sum_{(j \ldots j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\boldsymbol{l_{sa}} - \ldots)}
$$

$$
\sum_{n_i \ldots \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(\ldots + 1)}
$$

$$
\sum_{n_{i\ldots} \ldots \mathbb{k} - j_{ik} + 1}^{n_{\ldots} - j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

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$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}+\mathbb{k}-j_{sa}+1)}^{(n_{ik}+j_{sa}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(n_{is} - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

GÜLDÜNYA

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \le D + s - \boldsymbol{n}) \vee$

$(D \ge \boldsymbol{n} < n \wedge \boldsymbol{l} \ne {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \le D - \boldsymbol{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \le D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)) \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \le j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} - j_{sa} + 2)} \sum_{(j_s = 2)}
$$

$$
\sum_{j_{ik} = j_s + j_{sa}^{ik} - 1} \left(\sum_{j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}}^{(\ )} \right.
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

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$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - \quad)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + \quad - s = \quad) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \quad j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + \quad s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + \quad - j_{sa} = \boldsymbol{l_{ik}} \wedge \quad + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \quad < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l_s} \leq D - \boldsymbol{n} +$

$1 \leq j_s \leq j_{ik} - \quad + 1 \wedge j_s \quad j_{sa}^{ik} - \quad \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + \quad - j_{sa}^{ik} \leq j^{sa} \quad \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \quad = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} \quad j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + \quad \boldsymbol{n} < \boldsymbol{l_i} \quad + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)\Big) \wedge$

$D \geq \boldsymbol{n} < n \quad \boldsymbol{l} = \mathbb{k} > 0 \wedge$

$\quad 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)} \sum_{(j_s=2)}
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\quad)} \left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\quad\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+}^{+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$$
\left(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge \right.
$$

$$
1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge
$$

$$
j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge
$$

$$
j_s - j_{sa}^{ik} - 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge
$$

$$
\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee
$$

$$
(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge
$$

$$
1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge
$$

$$
j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge
$$

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$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n})) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} \sum_{(j_s=2)}^{(\boldsymbol{l_{ik}}+2)} \sum_{(\boldsymbol{l_s}+1)}^{(\boldsymbol{l_{ik}}+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{j_{ik}=j_s+j_{sa}} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

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$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{sa}} \leq D+j_{sa}-\boldsymbol{n} \wedge \boldsymbol{l_i} \leq D+s-\boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s>4 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=1 \Rightarrow$

$$f_{z\,s\,,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-\right.}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} \leq D+j_{sa}^{ik}-\boldsymbol{n} \wedge \boldsymbol{l_i} \leq D+s-\boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1$ $-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z \quad 1 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \quad \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \quad \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} -$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_s + 1)!}{(j_s + \boldsymbol{l_{ik}} - \quad)! \cdot (j_{ik} - \quad - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + \quad - \boldsymbol{l_{sa}} -}{(D + j^{sa} \quad \boldsymbol{n} - \boldsymbol{l_{sa}}) \quad (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} +$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s +$ $\quad - j_{ik} \leq j$ $\quad + j_{sa}^{ik} - j$ $\quad \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}$ $\quad - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} -$ $\quad > \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_i} \leq$ $\quad + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge$ $\quad _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} <$ $D - \boldsymbol{n}$ $\quad 1 \wedge$

$1 \leq$ $\quad \leq j_{ik} - j_{sa}^{ik} +$ $\quad \wedge j_s + j_{sa}$ $\quad - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa}$ $\quad _{sa}^{ik} \leq j^{sa} \leq$ $\quad + j_{sa} - s \wedge$

$\boldsymbol{l_{sa}} -$ $\quad + 1 >$

$\boldsymbol{l_{sa}} \leq D +$ $\quad - \boldsymbol{n} \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n})\Big) \wedge$

$\quad > \boldsymbol{n}$ $\quad \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}}^{n} \sum_{=\boldsymbol{n}+}^{(\quad j_s+1)}
$$

$$
\sum_{-j_{ik}+1}^{n_{is}+j_s} \sum_{=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-\quad \mathbb{k})}
$$

$$
\frac{(n_i - n_{is}}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot
$$

$$
\frac{n_{is}-n_{ik}+1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot
$$

$$
\frac{(n_{ik}-\quad-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

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$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik}} \right.
$$

$$
+ j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 1)
$$

$$
\sum_{j_{ik} = j^{} - j_{sa}^{ik} - j_{sa}} \sum_{+1)}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{} - j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

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$$\left(\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}\right.$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1}\ \sum_{(j^{sa}=j_{sa}+2)}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+j_{ik}-\mathbb{k})}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - \boldsymbol{n} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - \boldsymbol{n} - j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{sa} - \boldsymbol{n} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}\ \sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{(j^{sa}=\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+2)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(\boldsymbol{l_s}-j_s+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{ik}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{n})!\cdot(j^{sa}-j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_s-\boldsymbol{l_{sa}}-s)!}{(D+j_s-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$$D\geq \boldsymbol{n}<n\wedge \boldsymbol{l}\neq {}_{\boldsymbol{i}}\boldsymbol{l}\wedge \boldsymbol{l_s}\geq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_s-j_{sa}^{ik}\leq j^{sa}+\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1\leq \boldsymbol{l_{sa}}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}\leq \boldsymbol{l_{ik}}\wedge$$

$$D\geq \boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$$

$$j_{sa}^{i}\leq j_{sa}^{ik}-1\wedge j_{sa}^{ik}<j_{sa}^{s}-1\wedge j_{sa}^{s}\leq j_{sa}^{ik}-1\wedge$$

$$\boldsymbol{s}:\{j_{sa}^{s},\cdots,j_{sa}^{ik},\cdots,j_{sa}^{i}\}\wedge$$

$$s>4\wedge \boldsymbol{s}<s+\mathbb{k}\wedge$$

$$z\cdot z=1$$

$${}_{fz}S_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

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$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=j_{sa}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is} + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - \mathbb{k} - 1)}{(j^{sa} - j_{ik} - \mathbb{k})! \cdot (n_{ik} + \mathbb{k} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D - j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D > \boldsymbol{n} < n \wedge \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \leq D + j_{sa} - \boldsymbol{l} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} - 1 \wedge j_s + \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 \leq \boldsymbol{l_s} \wedge \boldsymbol{l_s} - j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \wedge \boldsymbol{l} \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+2)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s + 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )} \right.
\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1}
\sum_{(j^{sa}=j_{sa}+2)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=\boldsymbol{l}}^{(\quad)}\ \sum_{(j_s=j_{ik}-j_{sa}^{ik}}^{(\quad)}\ \sum_{j_{ik}=j_{sa}^{ik}+}^{j_{sa}^{ik}-\boldsymbol{l}}\ \sum_{isa=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\quad)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

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$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik}\cdots a} = \Bigg(\sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

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$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\Bigg(\sum_{k=\boldsymbol{l}}^{(j_{ik} - j_{sa}^{ik})} \sum_{(j_s=2)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum^{(\boldsymbol{l_s}+j_{sa}-D)}_{(j^{sa}=j_{sa}+2)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum^{(n_i - j_s + 1)}_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}$$

$$\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}-1}^{n_{is}+j_s-j_{sa}} \sum^{(n_{ik}+j_{ik}-j^{sa})}_{(n_{sa}=\boldsymbol{n}+\mathbb{k}-j^{sa}+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{sa} + j^{sa} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - n_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum^{(n_i - j_s + 1)}_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik}!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{\boldsymbol{l}-j_s+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\boldsymbol{l}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_s-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$$\Big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ _i\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D+j_{sa}-\boldsymbol{n}\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}-j_s\leq\boldsymbol{l_{ik}}\big)\vee$$

$$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ _i\boldsymbol{l}\wedge\boldsymbol{l_{sa}}\leq D+j_{sa}-\boldsymbol{n}\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\big)\big)\wedge$$

$$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$$

$$j_{sa}=j_{sa}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}\leq j_{sa}^{ik}-1\wedge$$

$$\boldsymbol{s}:\{j_{sa}^{s},\cdots,j_{sa}^{ik},\cdots,\mathbb{k},j_{sa},\cdots,j_{sa}^{i}\}\wedge$$

$$s>4\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$$

$$\mathbb{k}_z:z=1\Rightarrow$$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+2)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=j_{sa}+2)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - \boldsymbol{l} + 1)! \cdot (\boldsymbol{l} - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_s + 1)!}{(j_s + \boldsymbol{l_{ik}} - \boldsymbol{l} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(j_{sa}^{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} - s)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{j_{ik}=\boldsymbol{l}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j_s=2)}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}+1)} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

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$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik})} \sum_{j_{ik}=j^{sa}+j_{sa}-j_{sa}} \sum_{(j^{sa}=j_{sa}+2)}^{(\boldsymbol{l_s}+\boldsymbol{l_{ik}}-\boldsymbol{l})}$$

$$\sum_{\boldsymbol{n}=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_{is}-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{(n_{is}+j_s-j_{ik})} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\left.\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

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$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$fz^{[illegible]} = \Bigg(\sum_{[illegible]} \sum_{(j_s [illegible] - j_{sa}^{ik} + 1)}^{(\ )}$$

$$\sum_{[illegible] = j_{sa}^{ik} + 1}^{\boldsymbol{l_{ik}} [illegible] 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \Bigg) +$$

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$$\left(\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\boldsymbol{l_{ik}-l}+1}\sum_{j_{ik}=j_{sa}^{ik}+1}^{(\boldsymbol{l_{sa}-l}+1)}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-\boldsymbol{n}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+\boldsymbol{n}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(\boldsymbol{l}+\boldsymbol{l}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D \geq \boldsymbol{l} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik}+1 \leq j_s + j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik} - j_s - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik}+ = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )}
$$

$$
\sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(\quad + j_s + 1)}^{(\quad + j_s + 1)}
$$

$$
\sum_{+1}^{n_{is} + j_s} \sum_{(\quad - \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{\quad})}
$$

$$
\frac{(n_i - n_{is}}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{- n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{a - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge$ $\boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq$ $- j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa}$ $_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

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$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = j_{ik} + 1}^{j_s - j_{ik} + n_{is}} \sum_{(n_{sa} = j_{ik} + j_{sa} - j^{sa} - \mathbb{k})}^{(\ )}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{is} - 1)!}{(j_{ik} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.
\sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}}
\sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik} + 1)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}
$$

$$
\left. \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \right.
$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(\boldsymbol{l_s}-j_s+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{ik}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{n})!\cdot(j^{sa}-j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} < D+j_{sa}-\boldsymbol{n} \wedge$$

$$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} < \boldsymbol{n}+j_{sa}-s \wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_{sa}} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge$$

$$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge j_{sa}^{ik} < j_{sa}^{i}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$$

$$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, j_{sa}^{i}\} \wedge$$

$$s > 4 \wedge \boldsymbol{s} < \boldsymbol{n}+\mathbb{k} \wedge$$

$$z \cdot z = 1$$

$${}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}\right.$$

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$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - \quad - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} \quad + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s \quad 1)! \cdot (n_{is} + j_s \quad n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{sa} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + \quad - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=2)}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(\ )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

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$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1}\sum_{j_{ik}=\boldsymbol{l_s}-j_{sa}^{ik}-\boldsymbol{l}+1}^{(\ )}\sum_{(j_{ik}=j_s-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{\boldsymbol{n}}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

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$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}}\Big) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$f_{z=j_s=j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)}\sum_{(j_s=2)}\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{(n_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}+1)}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-\cdots)}$$

$$\sum_{+j_s-j_{ik}}\sum_{-j^{sa}-\mathbb{k})}$$

$$\sum_{k=\boldsymbol{n}+\mathbb{k}-\cdots+1}^{\cdots}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{\cdots}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-\cdots)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{\cdots_{is}-n_{ik}-1)!}{\cdots_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{\cdots_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

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$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is} + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - \mathbb{k})! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_{ik} - \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=2)}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{j_{ik}=j_{sa}^{ik}+2}^{(\ )} \left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} -$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_s \quad + 1)!}{(j_s + \boldsymbol{l_{ik}} - \quad)! \cdot (j_{ik} \quad - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_s \quad - \boldsymbol{l_{sa}} - s)}{(D + j^{sa} \quad - \boldsymbol{l_{sa}})! \quad + j_{sa} - j^{sa} - s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} -$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j^{ik} \quad \leq j_{ik} \leq \quad + j_{sa}^{ik} - j \quad \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} \quad _{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - \quad > \boldsymbol{l_{ik}} \wedge$

$D \geq \quad < n \wedge I = \mathbb{k} \quad 0 \wedge$

$j_s \quad \leq j_{sa}^{i} - 1 \quad _{sa}^{ik} < j_{sa} \quad 1 \wedge j_{sa}^{s} \leq \quad _{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{ \quad \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, \quad \cdots, j_{sa}^{i} \}$

$\quad > 4 \wedge \quad - s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} - \boldsymbol{l} - j_{sa}^{ik} + 2)} \sum_{(j_s = 2)} \right.$$

$$\left. \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{(\quad)} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})} \right.$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - \boldsymbol{n} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l} - \boldsymbol{l} - 1)!}{(\boldsymbol{l} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \Bigg) +$$

$$\left(\sum_{(\boldsymbol{l_{ik}} - j_{sa}^{ik} + 2)}^{(\boldsymbol{l_{ik}} - j_{sa}^{ik} + 2)} \right) \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-\right.}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-{}^{sa}-s)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ {}_{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}\leq j_{sa}^{ik}$ $\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,j_{sa}^{ik},\cdots,\mathbb{k},j_{sa},\cdots,j_{sa}^{i}\right.$

$s>4\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=1\Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )}\left(\sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\left(\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1}^{(n_i-j_s+1)}\right.$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\left(\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}\right.$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

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$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j$ $\leq j^{sa} + j_{sa}^{i}$ j_{sa}

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} >$ $\wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} -$ $\wedge j_{sa}^{s} \leq j_{sa}$ $1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}$ $\wedge$

$s > 4 \wedge \boldsymbol{s} = s +$ $\wedge$

$\mathbb{k} \cdot z = 1 =$

$$fz S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \sum_{(j_s = 2)} \right.$$

$$\sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{(\ )} \left(\sum_{j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik}} \right.$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} -$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} \quad)!}{(D + j^{sa} - \boldsymbol{n} \quad (\boldsymbol{n} + j_{sa} \quad - j^{sa} - s)!)}$$

$$\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}+1)} \sum_{(j_s=2)} \sum_{j_{ik} \quad + j_{sa}^{ik}-1} \sum_{(\quad = j_{ik}+j_{sa}-j_{sa}^{ik}+1)} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

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$$\left.\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$f_{2}\ldots, j_{ik}, j^{sa} \cdot \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\right.$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

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$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\Bigg(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{(\ )}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{\boldsymbol{n}+\mathbb{k}}^{(\ j_s+1)}$$

$$\sum_{}^{n_{is}+j_s}\sum_{}^{(n_{ik}+j_{ik}-j_{sa}^{ik})}$$

$$\sum_{j_{ik}+1}\sum_{(\boldsymbol{n}-j^{sa}+1)}$$

$$\frac{(n_i-n_{is}}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{-j_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$$\Big((D\geq\boldsymbol{n}<\boldsymbol{l}\wedge\boldsymbol{l}\neq\ _{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_{sa}}\leq D+j_{sa}-\boldsymbol{n}\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\Big)\vee$$

$$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ _{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_{sa}}\leq D+j_{sa}-\boldsymbol{n}\wedge$$

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$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s)\big) \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \le j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l}_s+1)} \right.
$$

$$
\sum_{n_s = j_s + j_{sa}^{ik}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

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$$\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{n}\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{n_{is}+j_s-j_{ik}}\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}\right.$$

$$\frac{(n_i - 1)}{(j_s - 2)!\,(n_i - n_{is}}\cdot$$

$$\frac{(n_{is} - n_{ik}}{(j_{ik} - j_s}\cdot$$

$$\frac{(n_{ik} - \mathbb{k} - 1)}{j^{sa} - j_{ik} - \cdot (n_{ik} + - n_{sa} - j^{sa} - \mathbb{k})!}\cdot$$

$$\frac{(n_{sa} 1)!}{(n_{sa} + - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{ik + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}\cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}^{\boldsymbol{l_{sa}}-\boldsymbol{l}+1}\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{n}\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{n_{is}+j_s-j_{ik}}\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} -$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \boldsymbol{l} + 1) \cdot (} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} -}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - (j^{sa} + j_s - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_s - \boldsymbol{l_{sa}} - s)}{(D + j^{sa} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Big)$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} +$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s +$ $\leq j_{ik} + j_{sa}^{ik} -$ $\wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} -$ $- s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_i} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} -$ $> \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} +$ $j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D +$ $\boldsymbol{n} \leq \boldsymbol{l_i} \leq D -$ $\boldsymbol{l_s} + s - \boldsymbol{n} -$ $\wedge$

$(D \geq \boldsymbol{n} < n \wedge$ ${}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} +$ $1 \wedge$

$1 \leq$ $\leq j_{ik} - j_{sa}^{ik} +$ $\wedge j_s + j_{sa} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} -$ $^{ik} \leq j^{sa} \leq$ $+ j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} -$ $^{ik} + 1 =$ $\boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} -$ $< \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\Big) \wedge$

$\boldsymbol{n}$ $\wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}
$$

$$
\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}\,(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}
$$

$$
\sum_{+1}^{n_{is}+j_s-} \sum_{(\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{}} \cdot
$$

$$
\frac{(n_i - n_{is}}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot
$$

$$
\frac{-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot
$$

$$
\frac{-\mathbb{k}-1)!}{(j^{sa}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+
$$

$$
\sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)} \sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+2)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(j_{sa}^{ik} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - j_{sa})! \cdot (j^{sa} - j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{n} - j_{sa}^{ik} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

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$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \le D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\big) \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \le j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, \ldots, sa} = \sum_{k=\boldsymbol{l}}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}
$$

$$
\sum_{k = j_{sa}^{ik} + 1}^{\ldots sa + j_{sa}^{ik} - j_{\ldots}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

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$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = \boldsymbol{l_s} + j_{sa} - \boldsymbol{l} + 1)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{is} = \boldsymbol{n} + j_s - j_{sa} + 1}^{n_{is} + j_s - j_{sa}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} + 1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} + \boldsymbol{l} \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

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$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s \cdots j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = 2)}
$$

$$
\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

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$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_s+1}^{(n_{is}+j_s-j_{ik})} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

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$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _i\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{sa}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _i\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _i\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_{sa}} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \ > 0 \wedge$

$j_{sa} \leq j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{\ldots}, \mathbb{k}, j_{sa}^{\ldots}, \cdots, j_{sa}^{i}\} \wedge$

$s > 1 \wedge \ = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \neq$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} $$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(j_{ik} - \boldsymbol{l} - 1)!}{(j_{ik} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} + \boldsymbol{l_{ik}} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}-j_{sa}+1)!\cdot(j_{ik}-j_s-j_{sa}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-1)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-1)!\cdot(j^{sa}+j_{sa}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}-1 \leq j^{sa}+j_{sa}^{ik}-$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l}$

$D+s-\boldsymbol{n} < \boldsymbol{l_i} \leq D-\boldsymbol{l_s}+s-\boldsymbol{n}-1$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l}$

$1 \leq j$

$j_{ik}+j_{sa}-$

$\boldsymbol{l_{ik}}-$

$D+j_{sa}-$

$\wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s>4 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

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$\Bbbk_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )}
$$

$$
\sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa} - 1} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}
$$

$$
\sum_{n_i = \boldsymbol{n} + \Bbbk}^{n} \sum_{(\boldsymbol{n} + \Bbbk - j_s + 1)}^{(n_i + j_s + 1)}
$$

$$
\sum_{j_{ik} = j_{sa}^{ik} + 1}^{n_{is} + j_s - n_{ik}} \sum_{(n_{ik} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \Bbbk)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \Bbbk - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )}
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}
$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{n}-\boldsymbol{l}-1)!}{(\boldsymbol{n}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}-\boldsymbol{l_{sa}}-j_{sa}^{ik}+\boldsymbol{l_s})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D-j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\Big((D \leq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \quad \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+$$

$$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s \quad {}_{sa}^{ik} \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+ = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} \quad j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge$$

$$D+ \quad \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{n}-j_{sa}^{ik} \wedge$$

$$D+s-\boldsymbol{n} \quad \boldsymbol{l_i} \leq D+\boldsymbol{l_{sa}}+s-\boldsymbol{n}-j_{sa}) \vee$$

$$n \wedge \boldsymbol{l} \neq \quad {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$$

$$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s = \boldsymbol{l_{sa}} \wedge$$

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$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{i\ldots}{}^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}
$$

$$
\sum_{j_{ik} = j_{sa}^{ik}+1}^{j_{sa}^{ik} - D - j_{sa} - 1} \ \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \ \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \ \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
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$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-\ldots)!}\cdot$$

$$\sum_{\ldots k=\boldsymbol{l}}\ \sum_{(j_s=j_{i\ldots}\ldots j_{sa}^{ik}+1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_s}\ldots}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}\ldots}\ \sum_{(j\ldots j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}\ldots}$$

$$\sum_{n_i\ldots\mathbb{k}}^{n\ldots}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(\ldots j_s+1)}$$

$$\sum_{n_{ik}\ldots\mathbb{k}-j_{ik}+1}^{n\ldots j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\Big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ {}_{i}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

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$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \le D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \le D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$

$(D \ge \boldsymbol{n} < n \wedge \boldsymbol{l} \ne \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \le D - \boldsymbol{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \le D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)) \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \le j_{sa} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = 2)} \sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )} \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}. $$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-j_{sa})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-1)}\ \sum_{(j_s=2)}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}}\ \sum_{j_{ik}}^{j_{sa}^{ik}-\boldsymbol{l}+1}\ \sum_{(n_{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{j_{sa}+1}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

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$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{sa}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa})$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} +$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} -$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D -$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\Big) \wedge$

$n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+}^{n} \sum_{\boldsymbol{n}+}^{(j_s+1)}
$$

$$
\sum_{}^{n_{is}+j_s} \sum_{}^{(n_{ik}+j_{ik}-j_{sa}^{ik})}
$$

$$
\sum_{j_{ik}+1}^{} \sum_{=\boldsymbol{n}-j^{sa}+1)}^{}
$$

$$
\frac{(n_i - n_{is}}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot
$$

$$
\frac{s - n_{ik} - 1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot
$$

$$
\frac{n_{ik} - a - \mathbb{k} - 1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+
$$

$$
\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{n} - \boldsymbol{l} - 1)!}{(\boldsymbol{n} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} + \boldsymbol{l_{ik}} - j_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$$

$$D + s - \boldsymbol{n} \leq \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1) \vee$$

$$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$$

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$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\ldots D-j_{sa})} \sum_{(j_s\ldots}
$$

$$
\sum_{\ldots=j_s+j_{sa}^{\ldots}} \sum_{\ldots+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{\ldots} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{i\ldots s}-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

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$$\sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j^{ik}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{is}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}-j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\big((\boldsymbol{l} \geq \boldsymbol{n} \leq n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D+j_{sa}-\boldsymbol{n} < \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{n}-j_{sa}^{ik} \wedge$

$D+s-\boldsymbol{n} < \boldsymbol{l_i} \leq D+\boldsymbol{l_{sa}}+s-\boldsymbol{n}-j_{sa}) \vee$

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$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{s} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{(j_s=2)}
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.
$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-j_{sa})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=\boldsymbol{l}}^{\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}$$

$$\sum_{s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

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$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\Big((D\geq \boldsymbol{n}<n\wedge \boldsymbol{l}\neq\ {}_{\boldsymbol{i}}\boldsymbol{l}\wedge \boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge$

$D+j_{sa}^{ik}-\boldsymbol{n}<\boldsymbol{l_{ik}}\leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1\wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_{sa}}+s-\boldsymbol{n}-j_{sa})\vee$

$(D\geq \boldsymbol{n}<n\wedge \boldsymbol{l}\neq\ {}_{\boldsymbol{i}}\boldsymbol{l}\wedge \boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}\wedge \boldsymbol{l_i}+\quad -s=\quad \wedge$

$D+j_{sa}-\boldsymbol{n}<\boldsymbol{l_{sa}}\leq D+\boldsymbol{l}\quad +j_{sa}-\boldsymbol{n}-1)\wedge$

$D\geq \boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}\leq \quad -1\wedge j_{sa}^{ik}<\quad -1\wedge j_{sa}^{s}\leq j\quad -1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\cdots,j_{sa}^{ik},\cdots,j_{sa},\cdots\quad\}\wedge$

$s>\quad \boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=1$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\sum_{(j_s=2)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ \ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (\quad - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} - s)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

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$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}-(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}}$

$D+j_{sa}-\boldsymbol{n} < \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}+1 > \boldsymbol{l_s} \wedge$

$D+j_{sa}-\boldsymbol{n} < \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1 \wedge$

$D+s-\boldsymbol{n} < \boldsymbol{l_i} \leq D+j_{sa}+s-\boldsymbol{n}-j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$D+j_{sa}-\boldsymbol{n} < \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1)\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

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$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}}^{n_{is}} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_{sa}+1)}^{(n_{is}-j_{sa}+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(j^{sa}=\boldsymbol{n}+j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_{is}-n_{is}-1)!}{(j_s-2)!\cdot(n_{is}-n_{is}-j_s+1)!}\cdot
$$

$$
\frac{(n_{ik}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot
$$

$$
\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{sa}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+
$$

$$
\sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}
$$

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$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{\boldsymbol{l_{ik}-l+1}} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(\boldsymbol{l_{sa}-l+1})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-j_{sa}^{ik}+1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-j_{sa}+1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_{ik}-\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \quad \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik}+1 \wedge j_s + j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$\quad + j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s = \boldsymbol{l_{sa}} \wedge$

$D+j_{sa}-\boldsymbol{n} < \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

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$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}^{(\quad -\boldsymbol{l}+1)} \sum_{j^{sa}=\boldsymbol{l_{sa}}}^{(\boldsymbol{n}-D)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}
$$

$$
\sum_{n_{is}=j_s-j_{ik}}^{j^{sa}-\mathbb{k})} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}
$$

$$
\sum_{=\boldsymbol{n}+\mathbb{k}-j_{\quad}+1}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - \quad)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

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$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-}$$

$$\frac{(n_i}{(j_s-2)!\cdot(n_i-n_{is}}\cdot$$

$$\frac{(n_{is}-n_{ik}}{(j_{ik}-j_s+1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-}{(j^{sa}-j_{ik}-\mathbb{k}+1)!\cdot(n_{ik}+}\cdot$$

$$\frac{(n_{sa}}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_{}-\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \quad < n \wedge \boldsymbol{l} \quad \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{} - j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$\quad + j_{} \quad {}_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s = \boldsymbol{l_{sa}} \wedge$

$D+j_{sa}-\boldsymbol{n} < \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

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$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik})}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_s+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

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$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-\mathbb{k}-1)}{(j^{sa}-j_{ik}-\cdot(n_{ik}+-n_{sa}-j^{sa}-\mathbb{k})!}$$

$$\frac{(n_{sa}1)!}{(n_{sa}+-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{ik+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s = \boldsymbol{l_{sa}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n} < \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1 \wedge$

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$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(\ldots=2)}^{(\ldots_{ik} - j_{sa}^{ik} + 1)}
$$

$$
\sum_{j_{ik}=j^{s}\ldots j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{ik}}\ldots + j_{sa} - D - j_{sa}^{ik})}^{(\boldsymbol{l_s} + j_{sa}\ldots)}
$$

$$
\sum_{n_i\ldots+\mathbb{k}}^{n\ldots} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(\ldots+1)}
$$

$$
\sum_{n_{ik}\ldots\mathbb{k}-j_{ik}+1}^{n\ldots j_s - j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

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$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-}$$

$$\frac{(n_i - 1)}{(j_s - 2)!\,(n_i - n_{is}}$$

$$\frac{(n_{is} - n_{ik}}{(j_{ik} - j_s}$$

$$\frac{(n_{ik} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)!\,(n_{ik} + j_s - n_{sa} - j^{sa} - \mathbb{k})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!}$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j \quad \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{l} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} \quad j_{sa}^{ik} + 1 \quad _s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} \quad _{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \quad > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \quad \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

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$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-1)} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s)}$$

$$\sum_{n_{ik}=}^{+j_s-j_{ik}} \sum_{(n_{sa}=}^{+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\sum_{n_{ik}=}^{-j_{ik}+1} \sum_{(n_{sa}=}^{j^{sa}+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{ik} - 1)!}{(j_{ik} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \sum_{(j_s=2)} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i - j_s + 1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{sa}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik} \leq 1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > 1 \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s = \boldsymbol{l_{sa}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n} < \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} \leq j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s},\cdots,j_{sa}^{ik},\cdots,\mathbb{k},j_{sa},\cdots,j_{sa}^{i}\} \wedge$

$n \geq 4 \wedge s \leq s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=1 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik})}$$

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$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_{is}-n_{ik}}{(j_{ik}-j_s}$$

$$\frac{(n_{ik}-}{(j^{sa}-j_{ik}-}$$

$$\frac{(n_{sa}}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} -$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_s + 1)!}{(j_s + \boldsymbol{l_{ik}} - \quad)! \cdot (j_{ik} - \quad - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + \quad - \boldsymbol{l_{sa}} -}{(D + j^{sa} \quad \boldsymbol{n} - \boldsymbol{l_{sa}}) \quad (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \quad_{\boldsymbol{i}} \boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_s}$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j \quad j_{sa}^{ik} - 1 \leq j_{ik} \quad j^{sa} + j_{sa} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} \quad s \wedge$

$\boldsymbol{l_{ik}} - \quad^{ik} + 1 = \boldsymbol{l_s} \quad \boldsymbol{a} + j_{sa}^{ik} - j_{sa} \quad \boldsymbol{k} \wedge$

$D \quad j_{sa} - \boldsymbol{n} \quad \boldsymbol{a} \leq D \quad \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \quad 0 \wedge$

$\quad a \leq j_{sa} \quad 1 \wedge j_{sa}^{ik} < j_s \quad - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s} \cdots, j_{sa}^{i} \quad \mathbb{k} \quad \cdots, j_{sa}^{i}\} \wedge$

$s \quad 4 \wedge \quad s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)} \right.$$

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$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s + 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{sa} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + \quad - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ \ )}\right.$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - 1)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - 1)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - j_{sa} - \boldsymbol{l_{sa}})! \cdot (D + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{(j_s = j_{ik}+1)} \sum_{j_{ik} = j_{sa}+1} \sum_{(j^{sa} = \boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 2)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

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$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq {}_{\boldsymbol{i}}\boldsymbol{l} - 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

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$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-_{ik}-j_{sa}\right)!}$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}$$

$$\frac{}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}\cdots(\boldsymbol{n}+j_{sa}-\cdots-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \geq j_{ik} \leq j^{sa}$ $_{a}^{ik}-j_{sa}$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{\cdots} > \boldsymbol{l_{ik}} \wedge$

$D+j_{sa}-\boldsymbol{n} < \boldsymbol{l_{sa}} \leq D+\cdots+j_{sa}-\boldsymbol{n}-\cdots \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}$ $< j_{sa}-1 \wedge j_{sa}^{s}$ $_{sa}^{ik}-1$

$\boldsymbol{s}$ $\left\{j_{sa}^{s},\cdots,j_{sa}\right.$ $,\mathbb{k},j_{sa}$ $\left.j_{sa}^{i}\right\} \wedge$

$s \geq 4 \wedge \boldsymbol{s}=s+\mathbb{k}$

$\mathbb{k}_z: z=$ $\Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}}=\left(\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}\right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{n}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}-j_{sa}-j^{sa}-s)!}\right)+$$

$$\left(\sum_{k=1}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}+1)}^{j^{sa}-j_{sa}-1}\sum_{n_{ik}=j_{sa}^{ik}+1}^{n_{sa}-j_{sa}-1}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

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$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{j_{ik}=j_{sa}^{ik}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=j_s+1)}$$

$$\sum_{=\boldsymbol{n}+1}^{n_{is}+j_s-}\sum_{(n_{ik}=j_{ik}-j^{sa}+1)}$$

$$\frac{(n_i-n_{is}-$$

$$\frac{(-n_{ik}-1)!}{-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{-\mathbb{k}-1)!}{(j^{sa}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D\geq\boldsymbol{n}<\ \wedge\boldsymbol{l}\neq\ {}_{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1\leq\boldsymbol{l}\leq\ {}_{\boldsymbol{i}}\boldsymbol{l}-1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge$

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$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(} \sum_{(j_s = j_{ik}}^{+1)}
$$

$$
\sum_{j_{ik}=j_{sa}^{ik}+}^{\boldsymbol{l_s}+j_{sa}^{i}} \sum_{}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{+\boldsymbol{n}-D)} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{i}{}_{s}-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

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$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, \ldots} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

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$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\Bigg(\sum_{k=\boldsymbol{l}}^{(j_{ik} - j_{sa}^{ik})} \sum_{(j_s=2)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{\boldsymbol{n}+\mathbb{k}}^{n_{is}+j_s-j} \sum_{(n_{sa}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa})}$$

$$\frac{(n_i - n_{is} - 1)!}{(\quad - 2)! \cdot (\quad - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(\quad - n_{ik} - 1)!}{(\quad - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(\quad - \mathbb{k} - 1)!}{(j^{sa} - \quad - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(\boldsymbol{l_s}-j_s+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{sa}^{ik}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_{ik}}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \geq D-\boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l} \leq {}_{\boldsymbol{i}}\boldsymbol{l}-1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq \boldsymbol{n}+j^{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{ik}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n} \leq \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \boldsymbol{0} \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\{j_{sa}^{s}, \cdots, j_{sa}^{k}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

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$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{sa}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$\big((D \leq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

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$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{sa}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik},} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

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$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\Bigg(\sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}$$

$$\sum_{\boldsymbol{n}_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}+\boldsymbol{n}-\mathbb{k}+j_s+1)}^{(n_{is}+j_s+1)}$$

$$\sum_{\boldsymbol{n}_{is}=\boldsymbol{n}+\mathbb{k}-j_s-1}^{n_{is}+j_s-j_{ik}-1} \sum_{(n_{sa}+\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} + j_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}+j^{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{n}+j_{sa}-\boldsymbol{l}-1)!}{(\boldsymbol{n}+j_{sa}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+1)!}{(\boldsymbol{l_{ik}}+\boldsymbol{l_{ik}}-\boldsymbol{l}-j_s)!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})}\ \sum_{(j_s=2)}\ \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\,(j_s-2)!}$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\,(j_{ik}-j_s-j_{sa}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\,(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1\Big) \wedge$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq {}_{\boldsymbol{i}}\boldsymbol{l} - 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \quad \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=}^{n} \quad \sum_{(\quad=\boldsymbol{n}+\quad j_s+1)}^{(\quad-j_s+1)}
$$

$$
\sum_{n_{is}+j_{ik}} \quad \sum_{(n_{ik}+j_{ik}}
$$

$$
\sum_{\quad \mathbb{k}-j_{ik}+1}^{} \quad \sum_{\quad=\boldsymbol{n}-j^{sa}+1)}^{}
$$

$$
\frac{(n_i - \quad)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{n_{is} - n_{ik} \quad 1)!}{(j_{ik} - j_s - 1) \quad (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} \quad j_{ik} - 1) \quad n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$$
D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \quad {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge
$$

$$
2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge
$$

$$
1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge
$$

$$
j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge
$$

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$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)} \sum_{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1\right)} \right.
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{ik}} - \boldsymbol{n} + j_{sa}^{ik} - D} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

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$$\left(\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{}}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+}^{}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(\quad j_s+1)!}\cdot$$

$$\frac{(n_{is}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{}-j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{}\ \sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-1}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} -$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} \quad _a\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} \quad (j^{sa} + j_s \quad - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_s \quad - \boldsymbol{l_{sa}} - s)}{(D + j^{sa} - \quad - \boldsymbol{l_{sa}})! \quad + j_{sa} - j^{sa} - s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \quad _i\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l}$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s \quad j_{sa}^{ik} - 1 \leq j_{ik} \quad j^{sa} + j_{sa} \quad j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} \quad s \wedge$

$\boldsymbol{l_{ik}} - \quad ^{ik} + 1 = \boldsymbol{l_s} \quad _a + j_{sa}^{ik} - j_{sa} \quad _k \wedge$

$D \quad j_{sa} - \boldsymbol{n} \quad _a \leq D \quad + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} \quad 0 \wedge$

$\quad _a \leq j_{sa}^{s} \quad 1 \wedge j_{sa}^{ik} < j_s \quad - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s} \cdots, j_{sa}^{ik}, \quad _k \quad \cdots, j_{sa}^{i}\} \wedge$

$s \quad 4 \wedge \quad s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)}\right.$$

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$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - \quad - 1)}{(j_s - 2)! \cdot (n_i - n_{is} \quad + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} \quad 1)!}{(j_{ik} - j_s \quad 1)! \cdot (n_{is} + j_s \quad n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{sa} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} \quad 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + \quad - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\left(\sum_{k=\boldsymbol{l}}^{\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\cdot$$

$$\sum_{k=\boldsymbol{l}}^{(\quad)}\ \sum_{(\quad-j_{ik}-j_{sa}^{ik}+1)}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}-D-j_{sa}-1}\ \sum_{=j_{sa}^{ik}+1}^{\quad+1)}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

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$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n} < \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s},\cdots,j_{sa}^{ik},\cdots,\mathbb{k},j_{sa},\cdots,j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$f_{z^{sa}j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\left(\sum_{k=\boldsymbol{l}}\sum_{j_s=2)}^{(j_{ik}-j_{sa}^{ik})}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l_s}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{D-j_{sa}}^{(\ )}\sum_{(j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\ \mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(\ +1)}$$

$$\sum_{n_{is}+\mathbb{k}-j_{ik}+1}^{n_{is}-j_s-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

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$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\quad)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-} \sum_{j^{sa}+1)}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s + 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{sa} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_{sa} - \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \leq D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} - 1 \leq \boldsymbol{l} \leq {}_{\boldsymbol{i}}\boldsymbol{l} - 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

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$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=2}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(\ldots=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ldots)}
$$

$$
\sum_{\ldots n_i=\boldsymbol{n}+\mathbb{k}} \sum_{(\ldots=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s\ldots)}
$$

$$
\sum_{\ldots=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{\ldots+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(\ldots-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - \ldots)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(\ldots n_{is} - n_{ik} - 1)!}{(\ldots j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(\ldots_{sa} \ldots j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

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$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _i\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{sa}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\left. \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \right.
$$

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$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s -} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j} \Bigg)$$

$$\left(\sum_{k=\boldsymbol{l}}^{} \sum_{(j_s=2}^{(j_{ik}} \right.$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+j_{sa}^{ik}-D-} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

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$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}\sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-1}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(\ldots+\mathbb{k}\ldots j_s+1)}^{(n\ldots j_s+1)}$$

$$\sum_{\ldots=\boldsymbol{n}\ldots+1}^{n_{is}+j_s-\ldots}\sum_{(n\ldots\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{\ldots})}$$

$$\frac{(n_i-n_{is}-\ldots)}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(\ldots-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(\ldots_{sa}-\mathbb{k}-1)!}{(j^{sa}-\ldots_k-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}\sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa})!} \cdot$$

$$\frac{(j_{ik} - \boldsymbol{l} - 1)!}{(j_{ik} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} + \boldsymbol{l_{ik}} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=2)}^{} \sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}+1)!\cdot(j_{ik}-j_s-j_{sa}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + \boldsymbol{l} \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} + j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa} < j_{sa} - 1 \wedge j_{sa}^{s} - j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa} \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa} \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} - s + \mathbb{k} \wedge$

$\mathbb{k}_z: \mathbb{k} - 1 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)} \right.$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} + \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{\boldsymbol{l} - \boldsymbol{l} - 1)!}{(\boldsymbol{l} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(\boldsymbol{l} + j^{sa} - \boldsymbol{l} - \boldsymbol{l})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)} \right.$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

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$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-_{ik}-j_{sa}\right)!}$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!(\boldsymbol{n}+j_{sa}-_{s})!}+$$

$$\sum_{}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\sum_{(j_s=2)}\sum_{=j_s+j_{sa}}\sum_{+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n_{}}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

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$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq {}_{\boldsymbol{i}}\boldsymbol{l} - 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$ {}_{fz}S_{j_s,\ldots,j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)} \sum_{(j_s=2)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot $$

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$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa}$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D+j_{sa}-\boldsymbol{n} < \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots\right\} \wedge$

$s > 4 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=1 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}\right.$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\left.\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot\right)$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-1)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-1)!}\Bigg)+$$

$$\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_{sa}=1)}^{(D-j_{sa}+1)}\right.$$

$$\sum_{j_{ik}=j_s}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{j_{ik}-1}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

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$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}\sum_{(j_s=2)}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}+\mathbb{k}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(n_{is}-1)!\cdot(n_i-n_{is}-j_s+1)!}$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D\geq \boldsymbol{n}<n\wedge \boldsymbol{l}\leq D+\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$2\leq \boldsymbol{l}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge$

$D+j_{sa}^{ik}-\boldsymbol{n}<\boldsymbol{l_{ik}}\leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1\wedge$

$D\geq \boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

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$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \le j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \Bbbk, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)} \right.
$$

$$
\sum_{j_{ik}=j_s+j_s-1}^{(} \sum_{(j^{sa}=j_{ik}+j_{sa}-k)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(}^{(n_i-j_s+1)} \sum_{-j_s+1)}
$$

$$
\sum_{n_{ik}=}^{n_{is}+j_s} \sum_{\Bbbk-j_{ik}+1}^{(n_{ik}+j_{ik}-j^{sa}-\Bbbk)} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{ik} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \Bbbk - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)} \right.
$$

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$$\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is} \quad + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} \quad 1)!}{(j_{ik} - j_s \quad 1)! \cdot (n_{is} + j_s \quad n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{sa} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j \quad \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\,(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\,(j_{ik}-j_s-j_{sa}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\,(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik}-j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D+j_{sa}-\boldsymbol{n} < \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1)$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{sa}}-j_{sa}+1 > \boldsymbol{l_s} \wedge$

$D+j_{sa}-\boldsymbol{n} < \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

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$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)} \right.
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)}
$$

$$
\sum_{n_i=\boldsymbol{n}+}^{n} \sum_{(\quad-\boldsymbol{n}+}^{(\quad-j_s+1)}
$$

$$
\sum_{j_{ik}+1}^{n_{is}+j_s} \sum_{(\quad=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j_{\quad}+\mathbb{k})}
$$

$$
\frac{(n_i - n_{is}}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot
$$

$$
\frac{(n_{is}-n_{ik}+1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot
$$

$$
\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)} \right.
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (\quad - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(\quad + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + \quad - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\quad + \boldsymbol{n} - D - j_{sa})} \sum_{(j_s=2)} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+\right.}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-\right.-j_{sa})!}$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot+j_{sa}-j^{}}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-+1)}^{}\sum_{j_{ik}=j_s}^{j_{sa}^{ik}-1}\sum_{(j^{}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{}^{j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{i}-j_s-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

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$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, \ldots} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)} \right.
$$

$$
\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = \boldsymbol{l_{ik}} + \boldsymbol{n} + j_{sa} - D - j_{sa}^{ik})}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\left. \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot \right.
$$

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$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\Bigg(\sum_{k=\boldsymbol{l}}\sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik})}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}$$

$$\sum_{n_i=\boldsymbol{l_s}}^{n_i}\sum_{(n_{is}=\boldsymbol{l_s}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{l_s}+\mathbb{k}-j_{ik}+1}^{n_{is}-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-1)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j_{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}\sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-j_{ik}-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(j_{sa}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{n}-\boldsymbol{l}-1)!}{(\boldsymbol{n}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}-j_{sa}^{ik}+1\right)!}{(j_{ik}+\boldsymbol{l_{ik}}-j_{ik}-j_{sa})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq j_{ik} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l} \leq \boldsymbol{n}-1 \wedge$

$1 \leq j_{sa} \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s}+\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n} \leq \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1 \wedge$

$\boldsymbol{n}=\boldsymbol{n}+\mathbb{k} \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s},\cdots,j_{sa}^{ik},\cdots,\mathbb{k},j_{sa},\cdots,j_{sa}^{i}\} \wedge$

$s>4 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

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$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\boldsymbol{l}}^{n} \sum_{(\boldsymbol{n}+\boldsymbol{l}-j_s+1)}^{(n_i+j_s+1)}
$$

$$
\sum_{j_{ik}=j_s+1}^{n_{is}+j_s} \sum_{(\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - j_s)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

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$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(j_s = j_{ik} \quad +1)} \right.
$$

$$
\sum_{j_{ik} \quad +\boldsymbol{n}-D}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \quad \sum^{(\quad)} \quad -j_{sa}^{ik})
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

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$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})}\sum_{(j_s=2)}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\ )}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}{}^{j^{sa}+1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{sa}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\ )}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\,(j_s-2)!}$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\,(j_{ik}-j_s-j_{sa}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\,(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + \boldsymbol{l} \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq {}_{\boldsymbol{i}}\boldsymbol{l} - 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} - j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa} \leq j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{i}, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa} \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = \cdots + \mathbb{k} \wedge$

$\mathbb{k}_z: \cdots \Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\ \ )} \left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)$$

GULDUNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-\boldsymbol{l}-1)!\cdot(j^{sa}-1)!}\cdot$$

$$\frac{(\boldsymbol{n}+\boldsymbol{l}-j_s-1)!}{(\boldsymbol{n}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik}+1)!}{(\boldsymbol{l_{sa}}+\boldsymbol{l_{ik}}-j_{sa}^{ik})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{l} < n \wedge \boldsymbol{l} \neq \boldsymbol{l_s} \leq D-\boldsymbol{n}+$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}-j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$1 \leq \leq j_{ik}-j_{sa}^{ik}+ \wedge j_s+j_{sa}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq +j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D+j_{sa}^{ik}- \leq \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1 \wedge$

$> \boldsymbol{n} \leq \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}<j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s>4 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=1 \Rightarrow$

GÜDÜMYA

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)} \right.
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ \ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+j_{ik}+j_{sa}-\mathbb{k})}^{n_{is}+j_s-j_{ik}+j_{ik}+j_{sa}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)} \right.
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ \ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_{ik}}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l}+\boldsymbol{n}-D-j_{sa})} \sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\ )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

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$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - \quad)}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{sa}} > D + \boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{n} - j_{sa}^{ik} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{\quad} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(n_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_s}-s)!}{(D+j^{sa}-\boldsymbol{l_s}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j^{ik}-j_{sa}= \wedge$

$\boldsymbol{l_{ik}} > D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}- \wedge j_{sa}^{ik} < -1 \wedge j_{sa}^{s} \leq j_{s}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, j_{sa}, \cdots\} \wedge$

$s > \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z : z = 1$

$$fzS_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (\boldsymbol{l_{ik}} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \geq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa} - 1 \leq j_{ik} \leq \boldsymbol{n} + j_{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + \boldsymbol{l_{sa}} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{sa}} - j_{sa} + 1 \geq \boldsymbol{l} \wedge$

$\boldsymbol{l_{sa}} \geq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} - j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$\boldsymbol{n} > 4 \wedge \boldsymbol{s} \geq s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}$$

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$$\sum_{j_{ik}=\boldsymbol{l_{ik}+n}-D}^{\boldsymbol{l_{ik}-l}+1} \sum_{(j^{sa}=\boldsymbol{l_{sa}+n}-D)}^{(\boldsymbol{l_{sa}-l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}+\mathbb{k}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is} + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - \mathbb{k} - j_{ik})}{(j^{sa} - j_{ik} - \mathbb{k})! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s - \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \boldsymbol{l_i} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$$

$$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \boldsymbol{l_i} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

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$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}
$$

$$
\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} \sum_{(j^{sa} = j_{sa} + 1)}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}$ $-j_{sa}$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s>$ $\wedge$

$\boldsymbol{l_i} \leq D+s-\boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq$ $-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-$ $\leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq$ $+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}$ $\boldsymbol{l_{sa}}+j_{sa}$ $=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}} \wedge$

$D+s$ $<\boldsymbol{l_i} \leq D+$ $+s-\boldsymbol{n}-1)\Big) \wedge$

$D \geq \boldsymbol{n} < n$ $= \mathbb{k} >$ $\wedge$

j_{sa} j_{sa} $1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots,$ $, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s>4 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=1 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}$$

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$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)} \sum_{(j^{sa}=j_{sa}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-} \sum_{j^{sa}+1)}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_{is}-n_{ik}}{(j_{ik}-j_s}$$

$$\frac{(n_{ik}-}{(j^{sa}-j_{ik}-}$$

$$\frac{(n_{sa}}{(n_{sa}+j_{sa}-}$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D$$

$D \geq \boldsymbol{n} < n \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} - 1 \wedge j_s +$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} +$

$\boldsymbol{l_i} \leq D -$

$D \geq \boldsymbol{n} < n \wedge$

$j_{sa} = j_{sa}^{s} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}
$$

$$
\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}\ (\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)} \sum_{(j^{sa}=j_{sa}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (\quad j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} \quad n_{ik} - 1)!}{(j_{ik} - j_s \quad 1)! \cdot (n_{is} \quad j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{{}^{sa} - j_{ik} \quad 1)! \cdot (n_{i} \quad - j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})} \sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+2)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - \boldsymbol{l_i} - \boldsymbol{l} + 1)! \cdot (\boldsymbol{l_i} - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - j_{sa})! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j^{sa} - \boldsymbol{l_{sa}} - \boldsymbol{n})!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} +$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s +$ $j_{ik} \leq j$ $+ j_{sa}^{ik} - j$ $\wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}$ $- s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l}$ $\wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} -$ $> \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{sa}} \leq$ $+ j$ $- \boldsymbol{n}$ $\leq D + s - \boldsymbol{n}$

$(D \geq \boldsymbol{n} < n \wedge$ ${}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} <$ $D - \boldsymbol{n}$ $1 \wedge$

$1 \leq$ $\leq j_{ik} - j_{sa}^{ik} +$ $\wedge j_s + j_{sa}$ $- 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa}$ $^{ik}_{sa} \leq j^{sa} \leq$ $+ j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} -$ ^{ik} $+ 1 =$ $\boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D +$ $\boldsymbol{n})\Big) \wedge$

$> \boldsymbol{n}$ $\wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}
$$

$$
\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}
$$

$$
\sum_{n_i=\boldsymbol{n}+}^{n} \sum_{=\boldsymbol{n}+}^{(j_s+1)}
$$

$$
\sum_{j_{ik}+1}^{n_{is}+j_s} \sum_{=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is}}{(j_s-2)!\,(n_i-n_{is}-j_s+1)!}\cdot
$$

$$
\frac{s - n_{ik}}{(j_{ik}-j_s-1)!\,(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot
$$

$$
\frac{-\mathbb{k}-1)!}{(j^{sa}-1)!\,(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+
$$

$$
\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})} \sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(j_{sa}^{ik} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - 1)! \cdot (j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + \boldsymbol{l_{sa}} - s)!}{(D + \boldsymbol{n} - \boldsymbol{l_{ik}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \geq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + \boldsymbol{l_{sa}} - j_{sa}^{ik} \leq j^{sa} < \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > 0 \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} \geq \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} \geq D + j_{sa}^{ik} - \boldsymbol{n} \wedge \boldsymbol{l_{sa}} \leq D + s - \boldsymbol{n} \wedge$

$\boldsymbol{n} \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} - j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$\mathbb{k} > 4 \wedge s > s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

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$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=j_{sa}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - j_{ik})!}{(j^{sa} - j_{ik} - \mathbb{k})! \cdot (n_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)} \sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

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$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_i})}^{(\ )}
$$

$$
\sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l} - j_{sa} + 1} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_k} - \boldsymbol{l_i})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{\boldsymbol{n}} \sum_{(n_i = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s)}
$$

$$
\sum_{\boldsymbol{n} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{\boldsymbol{n} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{sa} + j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

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$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{j_{ik} = j_{sa}^{ik} + 1}^{(\ )} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{n} \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{n_{is} + j_s - j_{ik}} \sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

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$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}$ [illegible] $-s$ [illegible] $\boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D+s-\boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge$ [illegible] $j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots$ [illegible] $\} \wedge$

$s>4 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z$ [illegible] $1 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \cdots)!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - \boldsymbol{l} + 1)! \cdot (\cdots - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - \cdots)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \cdots)! \cdot (j^{sa} + j_s - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + \cdots - \boldsymbol{l_{sa}} - \cdots)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}}) \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + \cdots$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + \cdots - j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} \cdots - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_i} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - \cdots > \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{sa}} \leq \cdots + j_{sa} - \boldsymbol{n} \wedge \cdots \leq D + s - \boldsymbol{n} \wedge$

$(D \geq \boldsymbol{n} < n \wedge \cdots {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \cdots D - \boldsymbol{n} \cdots 1 \wedge$

$1 \leq \cdots \leq j_{ik} - j_{sa}^{ik} + \cdots \wedge j_s + j_{sa} \cdots - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} \cdots {}_{sa}^{ik} \leq j^{sa} \leq \cdots + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - \cdots {}_{sa}^{ik} + 1 = \cdots \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s \cdots \boldsymbol{n})\Big) \wedge$

$\cdots > \boldsymbol{n} \cdots \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}
$$

$$
\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+}^{n} \sum_{\boldsymbol{n}+}^{(\ \ j_s+1)}
$$

$$
\sum_{n_{is}+j_s}^{(n_{ik}+j_{ik}-j} \sum_{j_{ik}+1}^{\mathbb{k})} \sum_{=\boldsymbol{n}-j^{sa}+1)}
$$

$$
\frac{(n_i - n_{is}}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{s - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{n_{ik} - a - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \quad \boldsymbol{l} \neq \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} \leq D + j_{sa}^{ik} - \boldsymbol{n} \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

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$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(\ldots=2)}^{(\ldots_{ik} - j_{sa}^{ik} + 1)}
$$

$$
\sum_{\ldots = j_{sa}^{ik}+1}^{\boldsymbol{l_s} + \ldots - \boldsymbol{l}} \sum_{(\ldots = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ldots)}
$$

$$
\sum_{n_i = \ldots \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(\ldots + 1)}
$$

$$
\sum_{n_{i\ldots} = \ldots \mathbb{k} - j_{ik} + 1}^{n_{\ldots} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

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$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-} \sum_{j^{sa}+1)}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_{is}-n_{ik}}{(j_{ik}-j_s}$$

$$\frac{(n_{ik}-}{(j^{sa}-j_{ik}-}$$

$$\frac{(n_{sa}}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\Big((D \geq \quad < n \wedge \boldsymbol{l} \neq \quad _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$$

$$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \quad _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$$

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$\boldsymbol{l_i} \le D + s - \boldsymbol{n}) \vee$

$(D \ge \boldsymbol{n} < n \wedge \boldsymbol{l} \ne {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \le D - \boldsymbol{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \le D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)\big) \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \le j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s,\ldots,j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}-j_{sa}+2)} \sum_{(j_s=2)}
$$

$$
\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ \ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

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$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D+s-\boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}} \wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i} \leq D+\boldsymbol{l_s}-\boldsymbol{n}) \wedge$

$D \geq 0 < n \wedge I=\mathbb{k} \geq 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}<j_{sa}^{s}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, j_{sa}^{i}\} \wedge$

$s>4 \wedge \boldsymbol{s} \geq s+\mathbb{k} \wedge$

$\cdot z=1$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)}\sum_{(j_s=2)}$$

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$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}+\mathbb{k}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-1)}$$

$$\frac{(n_i - j_s - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - j_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{sa} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge j_s \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} - 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_s} - j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq \boldsymbol{l} + s - \boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)}
$$

$$
\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j^{ik}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{n_{is}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot
$$

$$
\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s+1)!\cdot(n_{is}-j_s-n_{ik}-j_{ik})!}\cdot
$$

$$
\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}+1)!\cdot(n_{ik}-j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}
$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{sa}} \leq D+j_{sa}-\boldsymbol{n} \wedge \boldsymbol{l_i} \leq D+s-\boldsymbol{n}\big) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

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$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n})\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$j_{ik}, j^{sa} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}$$

$$\sum_{j_{ik}=j_{sa}-\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

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$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ {}_{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge$

$\boldsymbol{l_{ik}}\leq D+j_{sa}^{ik}-\boldsymbol{n}\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}\leq j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}\colon\left\{j_{sa}^{s},\cdots,j_{sa}^{ik},\cdots,\mathbb{k},j_{sa},\cdots,j_{sa}^{i}\right\}\wedge$

$s>4\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z\colon z=1\Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1}\ \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

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$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s -$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D + j_{sa} -}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + (\boldsymbol{n} + j_{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}$

$s > 4 \wedge \boldsymbol{s} = s +$

$\mathbb{k} \ldots z = 1 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \right.$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = j_{sa} + 1)}^{(\boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - 1)!}{(D + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \Bigg)$$

$$\sum_{\boldsymbol{l}=1}^{\boldsymbol{l_s}-1} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{\boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 1}$$

$$\sum_{j^{sa} = j_{sa}+1}^{j_{sa}-1} \sum_{(j^{sa} = j_{sa}+2)}^{(\boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

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$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{j_{ik} = j_{sa}^{ik} + 1}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} \sum_{(j^{sa} = \boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 2)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = j_s + 1)}$$

$$\sum_{=\boldsymbol{n}}^{n_{is} + j_s -} \sum_{(n_{ik} = j_{ik} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} + 1)}$$

$$\frac{(n_i - n_{is}}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

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$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \le j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s}^{} \sum_{+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{} \sum_{(\boldsymbol{l_s}}^{} \sum_{-\boldsymbol{l})}^{} \sum_{j_{ik}=}^{} \sum_{+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}\,(j^{sa}-}^{} \sum_{+1)}^{} \sum_{}^{n} \sum_{(n_i-j_s+1)}^{} \sum_{n_i=\boldsymbol{n}+}^{} \sum_{-j_s+1)}^{} \sum_{n_{is}+j_s}^{} \sum_{}^{} \sum_{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}^{} \sum_{n_{ik}=}^{} \sum_{\mathbb{k}-j_{ik}+1}^{} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{}
$$

$$
\frac{(n_i - n_{is} - 1)!}{2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{ik - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \ge \boldsymbol{n} < n \wedge \boldsymbol{l} \ne {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \le D + j_{sa} - \boldsymbol{n} \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

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$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_{z}: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{(j^{sa} = j_{sa} + 1)}^{j^{sa} + j_{sa}^{ik} - j_{sa} - 1} \sum_{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}
$$

$$
\sum_{(j_{ik} = j_{sa} + 1)}^{n}
$$

$$
\sum_{n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1}^{n_i - j_s - j_{ik}} \sum_{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} - j_{ik} + 1}^{n_{is} - \mathbb{k} - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{j_{ik} = j_{sa}^{ik} + 1}^{j^{sa} + j_{sa}^{ik} - j_{sa} - 1} \sum_{(j^{sa} = j_{sa} + 2)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}
$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}+j^{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(j_s-\boldsymbol{l}-1)!}{(j_s-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}-\boldsymbol{l_{sa}}-j_{sa}+\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\ )}\ \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\ \sum_{j_{ik}=j_{sa}^{ik}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\ \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

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$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s -$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - \right. - j_{sa})!}$$

$$\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} -)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j_{sa} - s)!} \right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{sa} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\}$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k}$

$\mathbb{k} \ldots z = 1 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.$$

$$\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}} \sum_{(j^{sa} = j_{sa} + 1)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - 1)!}{(D + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \Bigg)$$

$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik} - j_{sa}^{ik})} \sum_{(j_s = \quad j_{ik} = j^{sa} \quad \boldsymbol{l_{sa}} \; (j^{sa} = j_{sa} + 2)}^{(n_{ik} + j_{ik} - j^{sa} - \boldsymbol{l})} \right.$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

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$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}+\mathbb{k}+1)}^{(n_{ik}+j_{sa}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\left.\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_{ik}} - \boldsymbol{l_s} - \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{sa} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

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$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{j_{ik} = j_{sa}^{ik}+1}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{(n_i - \ \ + 1)} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s)}
$$

$$
+ j_s - j_{ik} \qquad + j_{ik} - j^{sa} - \mathbb{k})
$$

$$
\sum_{n_{ik} = \ \ \mathbb{k} - j_{ik} + 1}^{} \sum_{(n_{sa} = j^{sa} + 1)}
$$

$$
\frac{(n_{is} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \sum_{j_{ik} = j_{sa}^{ik}+1}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik} + 1)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} \right.
$$

$$
\left. \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \right.
$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(j_{ik} + j_{sa}^{ik} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - 1)! \cdot (j^{sa} - j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_s - \boldsymbol{l_{sa}} - s)!}{(D + j_s - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \geq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} \leq j^{sa} + \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_{sa}} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} \geq \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa}^{i} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa}^{s} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} < z + \mathbb{k} \wedge$

$z \cdot z = 1$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

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$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_{is}-n_{ik}}{(j_{ik}-j_s}$$

$$\frac{(n_{ik}-}{(j^{sa}-j_{ik}-}$$

$$\frac{(n_{sa}}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D$$

$D \geq \boldsymbol{n} < n \wedge$ $\neq$ $_{\boldsymbol{i}}\boldsymbol{l} \wedge$ $\leq D+j_{sa}-\boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}$ $1 \wedge j_s+$ ^{ik} $1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}$ $j_{sa}^{ik} \leq j^{sa} \leq$ $+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1$ $\boldsymbol{l_s} \wedge \boldsymbol{l}$ $-j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge$

D $\boldsymbol{n}$ $\wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}$ $\wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{(\ )} \right.
$$

$$
\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s + 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j_{ik} + j_{sa} - j^{sa} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{(\ )} \right.
$$

$$
\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(n_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j^{ik} - j_{sa} = \boldsymbol{l} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j^{ik} < j_{sa} - 1 \wedge j_{sa} < j_{sa}^{ik} - 1$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \wedge$

$\mathbb{k}_z: z \quad 1 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik}+1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}\right.$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{n} + j_{sa} - \boldsymbol{l} - s)!}{(\boldsymbol{n} + j^{sa} - \boldsymbol{n} - \boldsymbol{l})! \cdot (\boldsymbol{n} - j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})} \sum_{j_{ik}=j_{sa}^{ik}+1}^{j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

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$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}\sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1}\sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1}^{n_{is}+j_s-j_{sa}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}+1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq{}_{i}\boldsymbol{l}\wedge\boldsymbol{l_{sa}}\leq D+j_{sa}-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

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$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_{z}: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} - \boldsymbol{l} - j_{sa}^{ik})} \sum_{(j_s=2)} \right.
$$

$$
\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_s)}
$$

$$
\sum_{i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=n_{ik}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=n_{sa}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} - \boldsymbol{l} - j_{sa}^{ik} + 2)} \sum_{(j_s=2)} \right.
$$

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$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-\boldsymbol{n}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-\boldsymbol{l}+1)!\cdot(n_{ik}+\boldsymbol{l}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(\boldsymbol{l}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{l} \wedge n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik} \wedge j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik} \wedge s \wedge -j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+ \wedge = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$\wedge n \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}<j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s>4 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

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$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}
$$

$$
\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\quad)}
$$

$$
\sum_{n_i=} \sum_{=\boldsymbol{n}+j_s+1)}^{n} \quad (\quad -j_s+1)
$$

$$
n_{is}+j_{s} \quad (n_{ik}+j_{ik} \quad -\mathbb{k})
$$

$$
\sum_{\mathbb{k}-j_{ik}+1} \sum_{=\boldsymbol{n}-j^{sa}+1)}
$$

$$
\frac{(n_i - \quad)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} \quad 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \quad \neq \quad_{\boldsymbol{i}} \boldsymbol{l} \wedge \quad_{\boldsymbol{a}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \quad_s \leq \quad_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \quad \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} \quad j_{sa} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

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$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)} \right.
$$

$$
\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)}^{(\quad)}
$$

$$
\sum_{n_i=\quad+\mathbb{k}} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-\quad)}^{(n_i-\quad+1)}
$$

$$
+j_s-j_{ik} \qquad +j_{ik}-j^{sa}-\mathbb{k})
$$

$$
\sum_{n_{ik}=\quad-j_{ik}+1} \sum_{(\quad^{sa}+1)}
$$

$$
\frac{(\quad n_{is}-1)!}{(j_s-2)! \cdot (\quad n_{is}-j_s+1)!} \cdot
$$

$$
\frac{(\quad-n_{ik}-1)!}{(j_{ik}-\quad-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot
$$

$$
\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-\quad-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)! \cdot (\boldsymbol{n}-j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)! \cdot (j_s-2)!} \cdot
$$

$$
\left. \frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})! \cdot (\boldsymbol{n}+j_{sa}-j^{sa}-s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)} \sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1\right)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \right.
$$

$$
\left. \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \right.
$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - j_{sa})! \cdot (j^{sa} - j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_s - \boldsymbol{l_{sa}} - s)!}{(D + j_s - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} < D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_s - j_{sa}^{ik} \leq j^{sa} < \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa}^{i} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa}^{s} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} < z + \mathbb{k} \wedge$

$z \cdot z = 1$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)} \right.$$

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$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )} \left(\sum_{j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}}} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \left(\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \right.$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \left(\sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})} \right.$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - \mathbb{k})! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - \boldsymbol{n} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +$$

$$\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \left(\sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \left(\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{(\ )} \right. \right. \right. \left. \left. \left. \sum_{j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}}} \right) \right) \right)$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \left(\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \right.$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \left(\sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})} \right.$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

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$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - \quad)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - \quad)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - \quad - s)!}\Big)$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - \quad \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s \quad) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \quad D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq \quad a + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + \quad - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 \quad \wedge \boldsymbol{l_{sa}} \quad - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + \quad - \boldsymbol{n} < \boldsymbol{l_{sa}} \quad D + \boldsymbol{l_s} + \quad - \boldsymbol{n} - 1)\Big) \wedge$

$\quad \geq \boldsymbol{n} < \quad \wedge I = \mathbb{k} > (\quad \wedge$

$j_{sa} \leq j_{\quad} - 1 \wedge \quad _{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \quad \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$\quad > 4 \wedge \quad s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{(\quad)}$$

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$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - \quad - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} \quad - 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} \quad 1)!}{(j_{ik} - j_s \quad 1)! \cdot (n_{is} + j_s \quad n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n \quad - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1 \quad (n_{ik} + \quad - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} \quad 1)!}{(n_{sa} + j \quad - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{+ \boldsymbol{l} \quad - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\quad)} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+2)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!}$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - 1\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{l_{sa}} - s)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{n} - j_{sa}^{ik} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\Big) \wedge$

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$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_{z}: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{\boldsymbol{l}=\boldsymbol{l}}^{(\quad)} \sum_{(j_s = j_{i} \quad \boldsymbol{l_s} - \boldsymbol{l_{ik}})}
$$

$$
j^{sa} \quad {}_{sa}^{ik} - j_{sa} \quad (\boldsymbol{l_s} \quad)
$$

$$
\sum_{j_{ik} = j_{sa}^{ik}+1} \quad \sum_{{}^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}
$$

$$
\quad (\quad j_s + 1)
$$

$$
\sum_{n_{i} \quad + \mathbb{k}}^{n} \quad \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}
$$

$$
\quad j_s - j_{ik} \quad (n_{ik} + j_{ik} - j^{sa} - \mathbb{k})
$$

$$
\sum_{n_{ik} = \quad \mathbb{k} - j_{ik} + 1} \quad \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

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$$\sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-} \sum_{j^{sa}+1)}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is} \quad + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} \quad 1)!}{(j_{ik} - j_s \quad 1)! \cdot (n_{is} + j_s \quad n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n \quad - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1 \quad (n_{ik} + \quad - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} \quad 1)!}{(n_{sa} + j \quad - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{+ \boldsymbol{l} \quad - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \quad < n \wedge \boldsymbol{l} \neq \quad _i \boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} \quad j_{sa}^{ik} + 1 \quad _s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} \quad j_{sa} \quad j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \quad > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \quad _i \boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

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$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$S_{j_s, j_{sa}} = \sum_{\boldsymbol{l}} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

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$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)} \sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}}^{(n_i-j_s+1)} \sum_{+\mathbb{k}-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+}^{n_{is}+j_s-j_{ik}} \sum_{j_{ik}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})} \sum_{(n_{sa}-}^{} \sum_{+1)}$$

$$\frac{(n_i - j_s - 1)!}{)! \cdot (n_i - j_s - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik}}{(j_{ik} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} + 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \boldsymbol{l_i} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_s + j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \boldsymbol{_i l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

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$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$j_{sa}^{ik} = \sum_{j_{sa}^{ik}} \sum_{(j_{sa}^{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{j_{ik} = j_{sa}^{ik}+1}^{j_{sa}+\boldsymbol{n}+j_{sa}^{ik} - j_{sa}-1} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

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$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \quad \sum_{(j^{sa} = j_{sa} - j_{sa}^{ik})}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{=\boldsymbol{n}+\mathbb{k}\ (n_{is}=n}^{n} \quad \sum^{(n_i \quad +1)}$$

$$\sum^{n_{is}+j_s-j_{ik}} \quad \sum^{(n_{ik}+j_{ik}-j^{sa}-}$$

$$\sum^{n_{ik}+j_{ik}+\mathbb{k}-j_{ik}} \quad \sum^{j^{sa}+1)}$$

$$\frac{-n_{is}-1)!}{-2)! \cdot (\quad -n_{is}-j_s+1)!} \cdot$$

$$\frac{(n_{ik}-n_{ik}-1)!}{(\quad -j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-\quad -1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!} \cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)! \cdot (\boldsymbol{n}-j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)! \cdot (j_s-2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})! \cdot \left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$$(D > \quad n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$$

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$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{n} - j_{sa}^{ik} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s +$

$\mathbb{k} \wedge z = 1 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa} - 1} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})} $$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - j_{sa}^{ik})! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - j_{sa} - \boldsymbol{l_{sa}})! \cdot (D + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{j_s - j_{sa} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

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$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\Big((D\geq \boldsymbol{n}<n\wedge \boldsymbol{l}\neq\ {}_{\boldsymbol{i}}\boldsymbol{l}\wedge \boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge$$

$$D+j_{sa}^{ik}-\boldsymbol{n}<\boldsymbol{l_{ik}}\leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-\wedge$$

$$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_{sa}}+s-\boldsymbol{n}-j_{sa})\vee$$

$$(D\geq \boldsymbol{n}<n\wedge \boldsymbol{l}\neq\ {}_{\boldsymbol{i}}\boldsymbol{l}\wedge \boldsymbol{l_s}\leq D-\boldsymbol{n}+$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq {}^{sa}+j_{sa}^{ik}-j_{}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}_{}{}_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}{}_{a}=\boldsymbol{l_{ik}}\wedge \boldsymbol{l}_{}-j_{sa}-s=\boldsymbol{l_{sa}}\wedge$$

$$D+j_{}-\boldsymbol{n}<\boldsymbol{l_{sa}}\leq D+\boldsymbol{l_s}+j_{sa}-1)\wedge$$

$$D\leq \boldsymbol{n}<n\wedge =\mathbb{k}>$$

$$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}-j_{sa}-1\leq j_{sa}^{ik}-1\wedge$$

$$\boldsymbol{s}:\left\{j_{sa}^{s},\ j_{sa}^{ik},\cdots,\mathbb{k},j_{sa},\ ,j_{sa}^{i}\right\}\wedge$$

$$s>4\wedge \boldsymbol{s}=\ \mathbb{k}\wedge$$

$$\mathbb{k}_{}=$$

$${}_{fz}S_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)}\sum_{(j_s=2)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\ \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ \ )}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l} - \boldsymbol{l} - 1)!}{(\boldsymbol{l} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_{sa}} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{sa}} + \boldsymbol{l_{ik}} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

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$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}-$$

$$\Big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ _{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}-\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$$

$$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-$$

$$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ _{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$$

$$D+s-\boldsymbol{n}<\boldsymbol{l_{sa}}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1)\big)\wedge$$

$$\geq\boldsymbol{n}<\wedge I=\mathbb{k}>(\wedge$$

$$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}-1\wedge j_{sa}^{s}\leq j_{sa}^{ik}-1\wedge$$

$$\boldsymbol{s}:\{j_{sa}^{s},\cdots,j_{sa}^{ik},\cdots,\mathbb{k},j_{sa},\cdots,j_{sa}^{i}\}\wedge$$

$$>4\wedge\boldsymbol{s}\geq s+\mathbb{k}\wedge$$

$$\mathbb{k}_z:z=1\Rightarrow$$

$$_{fz}S_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\sum_{(j_s=2)}$$

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$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - \mathbb{k} + 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - j_{ik} + j^{sa})!}{(j^{sa} - j_{ik} - \mathbb{k})! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(\boldsymbol{l_{ik}} + \boldsymbol{l} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} -$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} \quad)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} \quad (j^{sa} + j_s \quad - j_{ik} - j_{sa})!}$$

$$\frac{(D + \quad - \boldsymbol{l_{sa}} \quad}{(D + j^{sa} \quad \boldsymbol{n} - \boldsymbol{l_{sa}}) \quad (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + \quad \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + \quad - j_{ik} \leq j \quad + j_{sa}^{ik} - j \quad \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} \quad - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - \quad > \boldsymbol{l_{ik}} \wedge$$

$$D + \quad - \boldsymbol{n} < \boldsymbol{l_{sa}} \quad D + \boldsymbol{l_{ik}} + j_{sa} - \quad \wedge$$

$$D \quad s - \boldsymbol{n} < \boldsymbol{l} \quad D + \boldsymbol{l_{sa}} \quad s - \boldsymbol{n} \quad j_{sa}) \vee$$

$$(D \quad \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \quad \boldsymbol{l_s} \leq D \quad \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq \quad - j_{sa}^{ik} + 1 \wedge \quad + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + \quad - j_{sa}^{ik} \quad \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \quad = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$$

$$\quad + j_{sa} \quad < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$$

$$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

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$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} \sum_{(j_{sa})} \sum_{(j_s=2)}
$$

$$
\sum_{j_{ik}=j_{s}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot
$$

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$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=j}$$

$$\sum_{}^{n}\sum_{=\boldsymbol{n}+\mathbb{k}\,(n_{is}=n}^{(n_i}$$

$$\sum_{}^{n_{is}+j_s-j_{ik}}\sum_{}^{(n_{ik}+j_{ik}-j^{sa}}$$

$$\sum_{}^{n_{ik}+\mathbb{k}-j_{ik}}\sum_{}^{j^{sa}+1)}$$

$$\frac{-n_{is}-1)!}{-2)!\cdot(-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{ik}-n_{ik}-1)!}{(-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$(D>$ $n\wedge\boldsymbol{l}\neq\ _{i}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge$

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$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s \ldots j_{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{(j_s=2)}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=}^{(l_s-\boldsymbol{l}+}\ \sum_{=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}}^{(}$$

$$\sum_{j_{ik}=j_s}^{-j_{sa}+1}\ \sum_{(j^{sa}=j_{ik}-\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

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$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = 2)}$$

$$\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})} \sum_{\left(j^{sa} = \boldsymbol{l_{ik}} + \boldsymbol{n} + j_{sa} - D - j_{sa}^{ik}\right)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

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$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}^{}\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}\sum_{(j^{sa}=\boldsymbol{l_s}+}^{}$$

$$\sum_{n_i=\boldsymbol{n}+}^{n}\sum_{=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{}$$

$$+j_s-$$

$$\sum_{ik=\boldsymbol{n}+\mathbb{k}-}^{}\sum_{+1\ (n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-\quad)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{s-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-\quad k-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ {}_{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

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$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{\boldsymbol{l}=\boldsymbol{l}} \sum_{(j_s=2)}^{(j_{ik}+1)} \sum_{j_{ik}=\boldsymbol{l_{ik}}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-1} \sum_{D\,(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(j_{sa}-j_{ik}+1)} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})} $$

$$ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot $$

$$ \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot $$

$$ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot $$

$$ \frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot $$

$$ \frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot $$

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$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}^{}\sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ \ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}}^{(n_i-j_s+1}$$

$$\sum_{n_{ik}=\boldsymbol{n}+}^{n_{is}+j_s-j_{ik}}\sum_{j_{ik}+1\ (n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-j_s-1)!}{(n_i-j_s+1)!}\cdot$$

$$\frac{(n_{ik}-j_{ik}-1)!}{(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n} < \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

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$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik})}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j_{sa}=j_{ik}+\boldsymbol{n}-\boldsymbol{l_{ik}})}^{(\boldsymbol{n}-j_{sa})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}
$$

GÜLDÜNYA

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}+\mathbb{k}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-1)}$$

$$\frac{(n_i-j_s-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{sa}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_{sa}-\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$1 \leq j_{sa} \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-\boldsymbol{n} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$j_{sa}+j_{sa}^{ik}-1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}} \wedge$

$D+j_{sa}-\boldsymbol{n}<\boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}<j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

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$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}}} \right.
$$

$$
(\boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 1)
$$

$$
\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{\quad - \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}
$$

$$
(n_i - j_s +
$$

$$
\sum_{\quad = \boldsymbol{n} + \mathbb{k}} \sum_{\quad = \boldsymbol{n} + \mathbb{k} - j_s + 1)}
$$

$$
\quad j_s - j_{ik} \quad (\quad j^{sa} - \mathbb{k})
$$

$$
\sum_{\quad = \boldsymbol{n} + \mathbb{k} - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - \quad)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{\quad_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{\quad_{sa} \quad j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{j_{ik} = j_{sa}^{ik} + 1}^{j^{sa} + j_{sa}^{ik} - j_{sa} - 1} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 1)}
$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}+j^{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(j_s-\boldsymbol{l}-1)!}{(j_s-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}-\boldsymbol{l_{sa}}-j_{sa}^{ik}+\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{\boldsymbol{l}}^{(\ \ )}\ \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{j_{ik}=j_{sa}^{ik}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\ \sum_{(j^{sa}=\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+2)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

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$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s -$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - \quad - j_{sa}\right)!}$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}}$$

$$\frac{}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - \quad s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq \ _{\boldsymbol{i}}\boldsymbol{l} -$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} +$ $- j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} -$ $\boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D +$ $+ j_{sa} - \boldsymbol{n} -$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{} \leq j_{sa} - 1 \wedge j_{sa}^{s} -$ $^{ik} -$ $\wedge$

$\boldsymbol{s} \in \{j_{sa}^{s}, \cdots, j_{sa}^{} \ , \mathbb{k}, j_{sa}, \ \ j_{sa}^{i}\} \wedge$

$s >$ $\wedge \boldsymbol{s} = s + \mathbb{k}$

$\mathbb{k}_z : z =$ $\Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{ik}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l})!\cdot(j^{sa}-j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+\boldsymbol{l_s}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \geq D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik}+j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l}+j_{sa}-\boldsymbol{n}<\boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \boldsymbol{l_s} \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}<j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s>4 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=1 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s + 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j_{ik}^{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{j_{ik} = j_{sa}^{ik} + 1}^{j^{sa} + j_{sa}^{ik} - j_{sa} - 1} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=\boldsymbol{l}}^{(\quad)}\ \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-}^{j_{sa}^{ik}-\boldsymbol{l}}\ \sum_{j_{ik}=j_{sa}^{ik}+}^{(\quad)}\ \sum_{isa}^{(\quad)}\ \sum_{=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

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$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq {}_{\boldsymbol{i}}\boldsymbol{l} - 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$f_{\boldsymbol{z}}{}_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-\right.}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+$ $\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n} < \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-$ $\wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}$ $\wedge j_{sa}^{s} \leq j_{sa}^{ik}-$ $\wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\}$

$s > 4 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z \cdot z=1 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\left(\sum_{k=\boldsymbol{l}}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - 1)!}{(D + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \Bigg) \cdot$$

$$\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik})} \sum_{(j_s=2)}^{(\boldsymbol{l_s} - \boldsymbol{l})} \sum_{(n_{is}=j^{sa}+\boldsymbol{l_{ik}})}^{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik})} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l})} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

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$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}\sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}+\mathbb{k}+1)}^{(n_{ik}+j_{sa}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D\geq \boldsymbol{n}<n\wedge \boldsymbol{l_s}+\boldsymbol{l_{sa}}-\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1\leq \boldsymbol{l}\leq {}_{i}\boldsymbol{l}-1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge$

$D+j_{sa}^{ik}-\boldsymbol{n}<\boldsymbol{l_{ik}}\leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1\wedge$

$D\geq \boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

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$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \le j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{j_{ik}=j^{sa}-\boldsymbol{l_s}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}^{(\boldsymbol{l_{sa}}+1)} \sum_{n_i=\boldsymbol{n}+1}^{n} \sum_{n_{is}+j_s-1}^{(n_i-j_s+1)} \sum_{n_{ik}=\mathbb{k}-j_{ik}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{ik - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \ge \boldsymbol{n} < n \wedge \boldsymbol{l} \ne {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \le D - \boldsymbol{n} + 1 \wedge$

$2 \le \boldsymbol{l} \le D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

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$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \le D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \le j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{\mathbb{k}z}S_{j_s, j_{ik}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{=\boldsymbol{l_{sa}} + \boldsymbol{n} + j_s^{i}}^{\boldsymbol{l_{ik}} + 1} \sum_{D - j_{sa}\ (j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

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$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\Bigg(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{lk} - D - j_{sa}}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \quad \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - j_{sa}^{ik} + 1)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \quad \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \quad \sum_{(j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}$$

$$\frac{(n_{is} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{ik} - 1)!}{(j_s - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \quad \sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa} - 1} \quad \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \quad \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{n}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(j_{sa}^{ik}+j_{sa}^{ik}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-1)!\cdot(j^{sa}-j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_s-\boldsymbol{l_{sa}}-s)!}{(D+j_s-\boldsymbol{n}-\boldsymbol{l_s}+1)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \_ D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}}$

$1 \leq j_{ik} \leq j_{ik} - j_{sa}^{ik} + \_ \wedge j_s + j_{sa}^{ik} - 1 \_ j^{sa} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \_ j^{sa} \leq \boldsymbol{n} \_ j_{sa} - s$

$\boldsymbol{l_{ik}} \_ j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \_ + j_{sa}^{ik} \_ j_{sa} > \boldsymbol{l_{ik}} \wedge$

$\_ + j_{sa} - \_ < \boldsymbol{l_{sa}} \leq D \_ \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \_ < n \wedge \_ \_ \wedge$

$j_{sa} \leq j_{sa}^{i} \_ 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\_ \{j_{sa}^{s}, \cdots \_ sa, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+j_{ik}+j_{sa}-\mathbb{k})}^{n_{ik}+j_{ik}+j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - \quad - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - \quad - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{sa} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{sa}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{sa}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{\boldsymbol{l}=\boldsymbol{l}}^{\boldsymbol{l}} \sum_{(j_s=j_{ik}+\boldsymbol{l_{ik}})}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

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$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} -$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}}$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} -$ $- 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} -$ $\wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots$ $\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.$$

$$\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}$$

$$\left. \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \right)$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-1)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-D)!}\Bigg)+$$

$$\left(\sum_{k=1}^{n}\sum_{(j_s=2)}^{(j_{ik}-j_{sa}+j_{sa}^{ik}-\boldsymbol{l}}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}-D-j_{sa}}^{(\ )}\sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

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$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)\, \boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j_s=2)}^{} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\quad)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum^{(n_i - j_s + 1)}$$

$$\sum^{n_{is}+j_s-} \sum^{(n_{ik}+j_{ik}-j^{sa}+1)}$$

$$\sum_{=\boldsymbol{n}}^{+1} \sum^{(n_i - \boldsymbol{n} - j^{sa}+1)}$$

$$\frac{(n_i - n_{is} -}{i} - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(\quad - n_{ik} - 1)!}{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{sa} - \mathbb{k} - 1)!}{(j^{sa} - \quad - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg)$$

$D \geq \boldsymbol{n} < \quad \wedge \boldsymbol{l} \neq \quad {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq \quad {}_{\boldsymbol{i}}\boldsymbol{l} - 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

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$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(\ldots 2)}$$

$$\sum_{\boldsymbol{l_{ik}}=\boldsymbol{l_{sa}}+\boldsymbol{n}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(\ldots \boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{\ldots} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

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$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{z}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} - \boldsymbol{l} - j_{sa}^{ik} + 2)} \sum_{(j_s = \boldsymbol{l_{sa}} + \boldsymbol{n} - D - j_{sa} + 1)} \right.
$$

$$
\sum_{j_{ik} = j_s + \boldsymbol{l_{ik}} - \boldsymbol{l_s}}^{(\ )} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\left. \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot \right)
$$

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$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\Bigg(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)}\sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1}$$

$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-1)}\sum_{(j^{sa}=j_{ik}+}^{}$$

$$\sum_{}^{(n_i-j_s+1)}\sum_{(n_{is}+\mathbb{k}-j_s+1)}$$

$$n_{is}-j_{ik}\quad(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})$$

$$\sum_{n_{ik}+\mathbb{k}-j_{ik}+}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-1)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j_{ik}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\sum_{(j_s=2)}\quad\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-j_{ik}-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{n}-\boldsymbol{l}-1)!}{(\boldsymbol{n}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l} \leq \boldsymbol{n}-1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-\boldsymbol{l_s}+1=\boldsymbol{l_s}+\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}} \wedge$

$D+j_{sa}-\boldsymbol{n} \leq \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1 \wedge$

$\boldsymbol{n} \geq \boldsymbol{n}-1 \wedge I=\mathbb{k}>0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}<j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s},\cdots,j_{sa}^{ik},\cdots,\mathbb{k},j_{sa},\cdots,j_{sa}^{i}\} \wedge$

$s>4 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

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$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)} \sum_{(j_s=2)}
$$

$$
\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D}
$$

$$
\sum_{n_i=\boldsymbol{n}}^{n} \sum_{(\quad =\boldsymbol{n}+}^{(\quad j_s+1)}
$$

$$
\sum_{n_{is}+j_s}^{(n_{ik}+j_{ik}-} \sum_{(n_{ik}+j_{ik}-}^{\mathbb{k})}
$$

$$
\sum_{-j_{ik}+1}^{(\quad =\boldsymbol{n}-j^{sa}+1)}
$$

$$
\frac{(n_i - n_{is}}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot
$$

$$
\frac{n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot
$$

$$
\frac{(n_{ik}-\quad -\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}
$$

$D \geq \boldsymbol{n} < n \quad \boldsymbol{l} \neq \quad {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$\boldsymbol{\quad} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

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$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-\cdots+1)} \right.
$$

$$
\sum_{j_{ik}=\cdots+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\ )} \sum_{(\cdots-j_{sa}^{ik})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{i\cdots}-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)} \right.
$$

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$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-}$$

$$\frac{(n_i}{(j_s-2)!}$$

$$\frac{(n_{is}-n_{i}}{(j_{ik}-j_s}$$

$$\frac{(n_{ik}-}{(j^{sa}-j_{ik}-}$$

$$\frac{(n_{sa}}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{+\boldsymbol{l}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{(j_s=2)} \sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + \boldsymbol{l} \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} - j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa}^{s} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \mathbb{k} > 2 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa} \leq j_{sa} - 1 \wedge j_{sa}^{s} - j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa} \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa} \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} \cdots + \mathbb{k} \wedge$

$\mathbb{k}_z: \cdots 1 \Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)} \right.$$

$$\left. \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})} \right.$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}+j^{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(j_s-\boldsymbol{l}-1)!}{(j_s-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\left(\sum_{k=\boldsymbol{l}}^{}\ \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\right.$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1}\ \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

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$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\sum_{(j_s-$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{i}-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

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$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, \ldots} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}} \sum_{(j^{sa} = \boldsymbol{l_{ik}} + \boldsymbol{n} + j_{sa} - D - j_{sa}^{ik})}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

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$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=2)}^{} \right.$$

$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_s}+j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+}^{} j_{sa}^{ik})$$

$$\sum_{}^{(n_i-j_s+1)} \sum_{(n_{is}+\mathbb{k}-j_s+1)}^{}$$

$$n_{is} \quad j_{ik} \quad (n_{ik}+j_{ik}-j^{sa}-\mathbb{k})$$

$$\sum_{n_{ik}+\mathbb{k}-j_{ik}+}^{} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s \quad)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(\quad ik - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(\quad - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)} \sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}\ \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l}-1)!}{(D-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik}+1)!}{(\boldsymbol{l_{ik}}+\boldsymbol{l_{ik}}-j_s)!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{l} < n \wedge \boldsymbol{l} \neq {}_{i^{sa}}\boldsymbol{l_s} \leq D-\boldsymbol{n}+\boldsymbol{l}-1 \wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{l_{sa}}+1 < \boldsymbol{l} \leq D-1 \wedge$

$1 \leq j_{sa} < j_{ik}-j_{sa}^{ik}+1 \leq j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq j_{ik}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s}+\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{l_{sa}} < \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1 \wedge$

$\boldsymbol{n} < \boldsymbol{l} \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

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$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}
$$

$$
\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik}}
$$

$$
\sum_{n_i=\boldsymbol{n}+}^{n} \sum_{\boldsymbol{n}+}^{(}
$$

$$
\sum_{}^{n_{is}+j_s} \sum_{}^{(n_{ik}+j_{ik}-}
$$

$$
\sum_{j_{ik}+1}^{} \sum_{=\boldsymbol{n}-j^{sa}+1)}^{}
$$

$$
\frac{(n_i - n_{is}}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{s - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{a - \mathbb{k} - 1)!}{(j^{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$z \geq \cdots \geq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

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$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} \ldots +1)}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{j_{ik} \ldots \boldsymbol{l_{ik}} + \boldsymbol{n} - D \ldots}^{(\ )} \sum_{\ldots \boldsymbol{l_{ik}})}^{(\ )} \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{\boldsymbol{n}} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1}^{n_{is} \ldots s - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k})} \right.
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

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$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})}\sum_{(j_s=2)}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\ )}\sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}{}_{j^{sa}+1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s+1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{sa}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_{sa}+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\ )}\sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\,(j_s-2)!}$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\,(j_{ik}-j_s-j_{sa}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\,(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq{}_{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1\leq\boldsymbol{l}\leq{}_{\boldsymbol{i}}\boldsymbol{l}-1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}-j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}-j_{sa}=\boldsymbol{l_{ik}}\wedge$$

$$D+j_{sa}^{ik}-\boldsymbol{n}<\boldsymbol{l}\leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1\wedge$$

$$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}=\mathbb{k}>0\wedge$$

$$j_{sa}\leq j_{sa}^{i}-1\wedge j_s\leq j_{sa}-1\wedge j_{sa}^{s}\leq j_{sa}^{ik}-1\wedge$$

$$\boldsymbol{s}:\{j_{sa}^{s},j_{sa}^{ik},\cdots,\mathbb{k},j_{sa}^{s}\cdots,j_{sa}^{i}\}\wedge$$

$$s>4\wedge\boldsymbol{s}=\boldsymbol{n}+\mathbb{k}\wedge$$

$$\mathbb{k}_z:\mathbb{k}\Rightarrow$$

$${}_{fz}S_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}^{}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l} - 1)!}{(D - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} + \boldsymbol{l_{ik}} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D - j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{l} < n \wedge \boldsymbol{l} \neq \boldsymbol{l_{ik}} \leq \boldsymbol{l_s} \leq D - \boldsymbol{n} +$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} - j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_{ik} \leq j_{ik} - j_{sa}^{ik} + \wedge j_s + j_{sa} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \leq \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$> \boldsymbol{n} < \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)} \right.
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}-1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+j_{ik}-\mathbb{k})}^{n_{is}+j_s-j_{ik}+j_{ik}-j^{sa}-\mathbb{k})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)} \right.
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (\quad - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} - s)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\quad+\boldsymbol{n}-D-j_{sa})} \sum_{j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\quad)} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

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$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-\quad)}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{sa}} > D+\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{n}-j_{sa}^{ik} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} \leq j_{\quad}-1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=1 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(n_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_s}-s)!}{(D+j^{sa}-\boldsymbol{l_s}-j_{ik})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j^{ik} - j_{sa} = \wedge$

$\boldsymbol{l_{ik}} > D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa} - \wedge j_{sa}^{ik} < - 1 \wedge j_{sa}^{s} \leq j_{s} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, j_{sa}, \cdots\} \wedge$

$s > \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k})}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l_{ik}}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_{ik}}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+\boldsymbol{n}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\Big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}=\ {}_{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}})\vee$$

$$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}=\ {}_{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}}\wedge$$

$$D+\boldsymbol{n}-\boldsymbol{l_{sa}}-\boldsymbol{n})\vee$$

$$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}=\ {}_{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

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$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\ \boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}^{} \sum_{=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}}^{n_i-j_{ik}} \sum_{+1)}^{n_{ik}-j^{sa}-\mathbb{k}} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2 \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{sa - \mathbb{k} - 1)!}{(j^{sa} - k - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!}
$$

$\big((D \geq \quad < n \wedge \boldsymbol{l} = \ _i \quad \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} \quad j_{sa}^{ik} + 1 \quad _s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} \quad j_{sa} \quad j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \quad = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{sa}} \quad + j_{sa} - \boldsymbol{n} \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ _i \boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

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$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$$

$$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$$

$$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$$

$$\boldsymbol{l_i} \leq D + s - \boldsymbol{n})\big) \wedge$$

$$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$$

$$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$$

$$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 1 \Rightarrow$$

$$S_{j_s, j_{ik},} = \sum_{k=\ {}_{\boldsymbol{i}}\boldsymbol{l}}^{(\quad)} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{\left(\boldsymbol{l_{sa}} - \ {}_{\boldsymbol{i}}\boldsymbol{l}+1\right)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

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$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} \le D + j_{sa}^{ik} - \boldsymbol{n} \wedge \boldsymbol{l_i} \le D + s - \boldsymbol{n} \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \le j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$\int_{j_s, j_{ik}, j^{sa}} \sum_{k=\ _i\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}^{\left(\boldsymbol{l_{sa}} -\ _i\boldsymbol{l}+1\right)} \sum_{=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \ge \boldsymbol{n} < n \wedge \boldsymbol{l} =\ _i\boldsymbol{l} \wedge \boldsymbol{l_s} \le D - \boldsymbol{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

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$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_i} \le D + s - \boldsymbol{n}) \vee$

$(D \ge \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \le D - \boldsymbol{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{sa}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge$

$\boldsymbol{l_{sa}} \le D + j_{sa} - \boldsymbol{n} \wedge \boldsymbol{l_i} \le D + s - \boldsymbol{n})) \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \le j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s,\ldots,j^{sa}} = \sum_{k=\ {}_{\boldsymbol{i}}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}^{\boldsymbol{l_{ik}} - {}_{\boldsymbol{i}}\boldsymbol{l}+1} \sum_{j_{ik}=j_{sa}^{ik}}^{\left(\boldsymbol{l_{sa}} - {}_{\boldsymbol{i}}\boldsymbol{l}+1\right)} \sum_{(j^{sa}=j_{sa})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

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$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} \leq D + j_{sa}^{ik} - \boldsymbol{n} \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$f_{\boldsymbol{n}}(j_s, j_{ik}, j^{sa}) = \sum_{k=\,{}_{\boldsymbol{i}}\boldsymbol{l}}^{(\,)} \sum_{(j_s=1)}^{\boldsymbol{l_{sa}} + j_{sa}^{ik} - {}_{\boldsymbol{i}}\boldsymbol{l} - j_{sa} + 1} \sum_{j_{ik}=j_{sa}^{ik}}^{(\,)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{n} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i - j_{ik}+1)} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot \frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

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$$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$$

$$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{n} - j_{sa}^{ik} \wedge$$

$$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$$

$$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$$

$$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$$

$$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$$

$$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$$

$$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$$

$$\boldsymbol{l_{sa}} > D + \boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{n} - j_{sa}^{ik}\Big) \wedge$$

$$\boldsymbol{n} > \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$$

$$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$$

$$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z : z = 1 \Rightarrow$$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{\left(\boldsymbol{l_{sa}}-\ {}_{i}\boldsymbol{l}+1\right)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot
$$

$$
\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}
$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n} < \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1 \wedge$

$D+s-\boldsymbol{n} < \boldsymbol{l_i} \leq D+\boldsymbol{l_{sa}}+s-\boldsymbol{n}-j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s = \boldsymbol{l_{sa}} \wedge$

$D+j_{sa}-\boldsymbol{n} < \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1)\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

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$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\ {}_{i}\boldsymbol{l}} \sum_{(j_s=}^{(\ )} $$

$$ \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(\boldsymbol{l}_{sa}=\boldsymbol{n}-D)}^{(\boldsymbol{l}_{sa}=\ {}_{i}\boldsymbol{l}+1)} $$

$$ \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} $$

$$ \frac{(n_i - n_{ik} - 1)!}{(\ \ - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{sa} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot $$

$$ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot $$

$$ \frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot $$

$$ \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} $$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

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$\boldsymbol{l_{sa}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_s - s = \boldsymbol{l_s} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{sa}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge$

$\boldsymbol{l_{sa}} > D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \boldsymbol{l} > 0 \wedge$

$j_{sa} \leq j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa} \ldots, \mathbb{k}, j_{sa} \ldots, j_{sa}^{i}\} \wedge$

$s > 1 \wedge \ldots = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \ldots$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k= \ {}_{\boldsymbol{i}}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)} $$

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$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\ {}_{i}\boldsymbol{l}+1}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{\left(\boldsymbol{l_{sa}}-\ {}_{i}\boldsymbol{l}+1\right)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)}\ \sum_{n_{sa}=\boldsymbol{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(\boldsymbol{n}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{ik}^{ik}+1)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}+1)!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+j_{sa}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+\boldsymbol{n}-\boldsymbol{l_{sa}}-s)!}{(\boldsymbol{n}+j^{sa}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\Big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}=\ {}_{i}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_{sa}\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge$$

$$D+j_{sa}^{ik}-\boldsymbol{n}\leq\boldsymbol{l_{ik}}\leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1\wedge$$

$$D+j_{sa}-\boldsymbol{n}<\boldsymbol{l_i}+\boldsymbol{l_{sa}}+s-\boldsymbol{n}-j_{sa})\vee$$

$$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}=\ {}_{i}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_{sa}\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$$

$$D+j_{sa}-\boldsymbol{n}<\boldsymbol{l_{sa}}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1)\Big)\wedge$$

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$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_{z}: z = 1 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_s}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_i}-j_{sa}+1} \sum_{(\ )}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+j_{ik}-1}^{n} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(\ )} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2 \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \boldsymbol{l_i} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} + j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

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$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{\boldsymbol{i}\boldsymbol{l}} \sum_{(j_s=1)}^{(\ldots)}
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j\ldots \boldsymbol{l}_{ik}+\boldsymbol{n}+j_{sa}-D-j\ldots)}^{(\ldots j_{ik}+1)}
$$

$$
\sum_{n_{ik}=\ldots+\mathbb{k}}^{n} \sum_{(n_{ik}=\ldots-j_{ik}+1)}^{\ldots+j_{ik}-j^{sa}-\mathbb{k}} \sum_{n_{sa}=\ldots-j^{sa}+1}^{\ldots}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - \ldots)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j\ldots j_{ik} - \ldots)! \cdot (\ldots + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \ldots \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

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$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\ _{\boldsymbol{i}}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}}
$$

$$
\frac{(n_i \quad -1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} \quad +1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} \quad 1)!}{(j^{sa} - j_{ik} - 1) \quad + j_{ik} - \quad - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} \quad}{\quad a + j^{s} \quad \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\left. \frac{+ j_{sa} - \quad \boldsymbol{a} - s)!}{(D + j_{sa} \quad \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=\ _{\boldsymbol{i}}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa}+1)}^{\left(\boldsymbol{l_{sa}} - \ _{\boldsymbol{i}}\boldsymbol{l}+1\right)} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot (j^{sa} - j_{sa})!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right)
$$

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$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}\cdots a} = \left(\sum_{k={}_{\boldsymbol{i}}\boldsymbol{l}}^{(\ \ )} \sum_{j_{ik}=j_{sa}^{ik}}^{(\ \ )} \sum_{(j^{sa}=j_{sa})}^{(\ \ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k={}_{\boldsymbol{i}}\boldsymbol{l}}^{(\ \ )} \sum_{(j_s=1)}^{\left(\boldsymbol{l_{sa}} - {}_{\boldsymbol{i}}\boldsymbol{l}+1\right)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\ \ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\left. \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \right.
$$

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$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot (j_{ik} - j$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Big)$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}}\big) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s\big)\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{s} \leq j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s} \in \{j_{sa}^{s}, \cdots, j_{sa}^{i}, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 1 \wedge \boldsymbol{s} = s + \mathbb{k}$

$\mathbb{k}_z : z = \ \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\ _{\boldsymbol{i}}\boldsymbol{l}} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i - j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\left. \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \right.$$

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$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}-s)!}\Bigg)+$$

$$\Bigg(\sum_{k=\ {}_{i}\boldsymbol{l}}\sum_{(j_s=1)}^{(\ )}\sum_{\ }^{\boldsymbol{l_{ik}}-\ {}_{i}\boldsymbol{l}+1}\sum_{(j^{sa}\ \ {}_{sa}+1)}^{(\ {}_{a}-\ {}_{i}\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+}^{n}\sum_{\ \ \mathbb{k}-j_{ik}+1)}^{(n_i-j\ \ 1)}\sum_{\ \ a=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}\ \ -\mathbb{k}}$$

$$\frac{(n_i-n_{ik}\ \ )}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}\ \ n_{sa}-\mathbb{k}\ \ 1)!}{(j^{sa}\ \ j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}+1)!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(\ {}_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D\geq \boldsymbol{n}<n\wedge \boldsymbol{l}\ \ \boldsymbol{l_{sa}}\leq D+j_{sa}-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$\ \ +j_{sa}\ \ {}_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge$

$D\geq \boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}\leq j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,j_{sa}^{ik},\cdots,\mathbb{k},j_{sa},\cdots,j_{sa}^{i}\right\}\wedge$

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$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \Bigg(\sum_{k = {}_i\boldsymbol{l}} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \Bigg) +
$$

$$
\Bigg(\sum_{k = {}_i\boldsymbol{l}} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}+1}^{n_{ik}+j_{sa}^{ik}-n_{sa}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \Bigg)
$$

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$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}\cdots a} = \left(\sum_{k={}_{\boldsymbol{i}}\boldsymbol{l}}^{(\ \ )} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ \ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k={}_{\boldsymbol{i}}\boldsymbol{l}}^{(\ \ )} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_{ik}}-{}_{\boldsymbol{i}}\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ \ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

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$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot (j_{ik} - j$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1$ $_{sa} = {}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, \}$ $\wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z$ $1 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k = {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s = 1)}^{(\ )} \sum_{j_{ik} = j_{sa}^{ik}} \sum_{(j^{sa} = j_{sa})}^{(\ )} \right.$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1)}^{(n_i - j_{ik} + 1)} \sum_{n_{sa} = \boldsymbol{n} - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

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$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}-s)!}\Bigg)+$$

$$\Bigg(\sum_{k=\ _{i}\boldsymbol{l}}^{(\ )}\sum_{(j_s=1)}\sum_{j_{ik}=j_{sa}^{ik}}^{\left(\boldsymbol{l_{sa}}-\ _{i}\boldsymbol{l}+1\right)}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)}\ \sum_{n_{sa}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}}$$

$$\frac{(n_i\quad -1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}\quad +1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}\quad 1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{sa}+j_{ik}-\quad -j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}}{{}_{sa}+j^{sa}\quad \boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l}\quad +j_{sa}^{ik}-\quad -j_{sa})!}{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\quad _{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(D+\quad -\boldsymbol{l_{sa}}-s)!}{(D\quad j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D\geq \boldsymbol{n}<n\wedge \boldsymbol{l}=\ _{\boldsymbol{i}}\boldsymbol{l}\wedge \boldsymbol{l_s}\leq D-\quad +1\wedge$

$1\leq j_{\quad}\leq j_{ik}-j_{sa}^{ik}+\quad \wedge j_s+j_{sa}^{ik}-1\quad \leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\quad ^{sa}\leq \boldsymbol{n}\quad _{sa}-s\wedge$

$\boldsymbol{l_{ik}}\quad _{sa}^{ik}+1>\boldsymbol{l_s}\wedge\quad +j_{sa}^{ik}-\quad _{sa}=\boldsymbol{l_{ik}}\wedge$

$D+j_{sa}^{ik}-\quad \leq \boldsymbol{l_{ik}}\leq D\quad \boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1\wedge$

$D\geq \quad <n\wedge I\quad \quad 0\wedge$

$j_{sa}\leq j_{sa}^{i}\quad \wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}\leq j_{sa}^{ik}-1\wedge$

$\{j_{sa}^{s}\quad _{sa}^{ik},\cdots,\mathbb{k},j_{sa},\cdots,j_{sa}^{i}\}\wedge$

$s>4\wedge \boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z: z=1\Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(\quad - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\left. \frac{(D + j_{sa} \quad - 1)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \quad - s)!} \right) +
$$

$$
\left(\sum_{k=\ } \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=\ + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{\left(\boldsymbol{l_{sa}} - \ {}_{i}\boldsymbol{l}+1\right)} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right)
$$

$$
\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge
$$

$$
1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge
$$

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$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \le D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \ge \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \le D - \boldsymbol{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{sa}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \le D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)) \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \le j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$fz_{j_{ik}, j^{sa}} = \left(\sum_{k = {}_{\boldsymbol{i}}\boldsymbol{l}}^{(\ )} \sum_{(j_s = 1)} \sum_{j_{ik} = j_{sa}^{ik}} \sum_{(j^{sa} = j_{sa})}^{(\ )} \right.$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1)}^{(n_i - j_{ik} + 1)} \sum_{n_{sa} = \boldsymbol{n} - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +$$

$$\left(\sum_{k = {}_{\boldsymbol{i}}\boldsymbol{l}}^{(\ )} \sum_{(j_s = 1)} \sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_{ik}} - {}_{\boldsymbol{i}}\boldsymbol{l} + 1} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{\left(\boldsymbol{l_{sa}} - {}_{\boldsymbol{i}}\boldsymbol{l} + 1\right)} \right.$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)}\ \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\quad-j^{sa})!}$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}}{(\boldsymbol{l_{ik}}-j_{ik}-\quad+1)!\cdot(j_{ik}-\quad)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}\quad-\boldsymbol{l_{ik}}-j_{sa})}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}\quad-j_{sa})!}\cdot$$

$$\frac{+j_{sa}-\quad-s)!}{D+j^{sa}-\boldsymbol{n}-\quad)!\cdot(\boldsymbol{n}\quad j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \quad_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_{\quad}-j_{sa}^{ik}-1 \leq j_{\quad} \leq j^{sa}\quad_{ik}\quad_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s}-\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} \geq \boldsymbol{l_{ik}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n}-\boldsymbol{l_{ik}} \leq D-\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \quad > 0 \wedge$

$j_{sa} \leq j_{s}-1 \wedge j_{sa}^{ik} < j_{s}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{\quad}, \mathbb{k}, j_{\quad}, \cdots, j_{sa}^{i}\} \wedge$

$s \geq \quad \wedge \quad = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \quad$

$$_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\ _{\boldsymbol{i}}\boldsymbol{l}}^{(\ )}\ \sum_{(j_s=1)}^{(\ )}\ \sum_{j_{ik}=j_{sa}^{ik}}\ \sum_{(j^{sa}=j_{sa})}^{(\ )}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)}\ \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

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$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg)$$

$$\left(\sum_{k=\ \boldsymbol{i}\boldsymbol{l}}^{(\ )} \sum_{\boldsymbol{l_{sa}}+}^{+1} \sum_{j_{ik}\ +\boldsymbol{n}+j_{sa}^{ik}}^{\ j_{sa}\ (j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{\boldsymbol{i}=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=}^{(n_i-j_{ik}+} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \right.$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\left.\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\right)$$

$$D \geq \boldsymbol{n} < \ \wedge \boldsymbol{l} = \ \boldsymbol{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$$

$$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$$

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$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_{z}: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=\ )}^{\ } \sum_{j_{ik}=j_{sa}^{ik}}^{\ } \sum_{(\ =j_{sa})}^{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - \ )!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(\ - j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}^{\ } \right.
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{\left(\boldsymbol{l_{ik}}+j_{sa}-\ {}_{i}\boldsymbol{l}-j_{sa}^{ik}+1\right)} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}^{\ }
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}+1)!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}=\ {}_{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge$

$D+j_{sa}^{ik}-\boldsymbol{n}<\boldsymbol{l_{ik}}\leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}\leq j_{sa}-1\wedge$

$\boldsymbol{s}\colon\left\{j_{sa}^{s},\cdots,j_{sa}^{ik},\cdots,\mathbb{k},j_{sa},\cdots,j_{sa}^{i}\right\}\wedge$

$s>4\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z\colon z=1\Rightarrow$

$$_{j_s,j_{ik},j^{sa}}=\left(\sum_{k=\ {}_{\boldsymbol{i}}\boldsymbol{l}}^{(\ )}\sum_{(j_s=1)}\sum_{j_{ik}=j_{sa}^{ik}}^{(\ )}\sum_{(j^{sa}=j_{sa})}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)}\ \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}-s)!}\right)+$$

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$$\left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )}\sum_{(j_s=1)}^{\boldsymbol{l_{ik}}-\ {}_{i}\boldsymbol{l}+1}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\ )}\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)}\sum_{n_{sa}=\boldsymbol{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-2)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(n_{ik}-\boldsymbol{l_s}-1)!}{(n_{ik}-j_{ik}-\boldsymbol{l_s}+1)!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D+n_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_{ik}} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s = \boldsymbol{l_{sa}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n} < \boldsymbol{l_{ik}} < D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1\big) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_{ik}} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} > D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1\big)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}\colon \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

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$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k = {}_i\boldsymbol{l}} \sum_{(j_s=1)}^{(\ )}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-{}_i\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_i\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} - 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j^{ik} \leq j^{sa} \leq D + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} + j_{sa} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{sa}} > D + j_{sa} + j_{sa} - \boldsymbol{n} - j_{sa}^{ik} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s} : \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{\left(\boldsymbol{l_{sa}}-\ {}_{i}\boldsymbol{l}+1\right)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - \ldots}{(j_{ik}-2)! \cdot (\ldots - n_{ik} - \ldots + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} \ldots \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} \ldots - n_{sa} - j^{sa} \ldots)!} \cdot
$$

$$
\frac{(n_{sa} - \ldots}{(n_{sa} \ldots - \boldsymbol{n} \ldots - j^{sa})!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_s \ldots - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_s \ldots - j^{sa} - \ldots\right)! \cdot (j^{sa} - j_{sa})!} \cdot
$$

$$
\frac{(D + j \ldots - \boldsymbol{l_{sa}} - s)!}{(D + j \ldots - \boldsymbol{n} - \ldots)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \ldots D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} \ldots \leq j_{ik} \leq \ldots^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \ldots \leq j^{sa} \leq \ldots + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \ldots \boldsymbol{l_{sa}} + j_s \ldots - j \ldots \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{sa}} > \ldots + \boldsymbol{l_s} + j_{sa} - \ldots - 1) \vee$

$(D \geq \boldsymbol{n} < \ldots \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \ldots \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq \ldots \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \ldots \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{sa}} \ldots + 1 > \boldsymbol{l_s} \wedge$

$\boldsymbol{l_{sa}} > D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

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$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ \ )} \sum_{(j_s=}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-}^{\boldsymbol{l_{ik}}-\ {}_{i}\boldsymbol{l}+1} \sum_{}^{\left(\boldsymbol{l}\right.\ {}_{i}\boldsymbol{l}+1\left.\right)} \sum_{}^{\boldsymbol{l_{sa}}-D)}
$$

$$
\sum_{n_i=\boldsymbol{n}+}^{n} \sum_{j_{ik}+1)}^{(n_i-j_{ik}-)} \sum_{=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-)\ \mathbb{k}}
$$

$$
\frac{n_i - n_{ik}}{-2)!\ n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - a - \mathbb{k} - 1)!}{(j^{sa} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \quad < n \wedge \boldsymbol{l} \quad \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$+ j \quad j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} \leq D + j_{sa}^{ik} - \boldsymbol{n} \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

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$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{\boldsymbol{i}\boldsymbol{l}} \sum_{(j_s=1)}^{(\ldots)}
$$

$$
\sum_{j_{ik}=j\ldots\boldsymbol{l}_{ik}-\boldsymbol{l}_{sa}} \sum_{(j^{sa}=j_{sa}\ldots)}^{(\boldsymbol{l}_{sa}\ldots\boldsymbol{l}+1)}
$$

$$
\sum_{n\ldots+\mathbb{k}}^{n} \sum_{(n_{ik}=\ldots\mathbb{k}-j_{ik}+1)}^{(\ldots-j_{ik}+1)} \sum_{n_{sa}\ldots j^{sa}+1}^{\ldots+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - \ldots)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n\ldots - \mathbb{k} - 1)!}{(j\ldots - j_{ik} - \ldots)! \cdot (\ldots + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l}_{ik} - \boldsymbol{l}_s - j_{sa}^{ik} + 1)!}{(\boldsymbol{l}_{ik} - j_{ik} - \boldsymbol{l}_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l}_{sa} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l}_{sa})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \ldots \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq \ldots j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \ldots \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l}_{ik} \ldots + 1 > \boldsymbol{l}_s \wedge \boldsymbol{l}_{sa} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l}_{ik} \wedge$

$\boldsymbol{l}_{ik} \leq D + j_{sa}^{ik} - \boldsymbol{n} \wedge \boldsymbol{l}_i \leq D + s - \boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

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$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \Bbbk, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\ {}_{i}\boldsymbol{l}} \sum_{(j_s=}^{(\ )}
$$

$$
\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\ {}_{i}\boldsymbol{l}-j_{sa}+1} \sum_{(j_{ik}+\ -\boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+}^{n} \sum_{\ k}^{(n_i-j_{ik}\ )} \sum_{j_{ik}+1)}^{n_{ik}+j_{ik}-\ \Bbbk} \sum_{=\boldsymbol{n}-j^{sa}+1}
$$

$$
\frac{(n_i - n_{ik}}{\ - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - \ a - \Bbbk - 1)!}{(j^{sa} - \ - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \Bbbk)!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_s - j_{sa}^{ik}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} \leq n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \ \boldsymbol{a} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} \ j_{sa}^{ik} + 1 \ \ s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} \ \ s \ - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \ > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$\ \ n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \Bbbk, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

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$\mathbb{k}_z : z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} -}{(j_{ik}-2)! \cdot (n_i - n_{ik} - k + 1)!}
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - k)!} \cdot
$$

$$
\frac{(n_{sa} -)!}{(n_{sa} - j^{sa} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\left. \frac{(D + - \boldsymbol{l_{sa}} - s)!}{(D - {}_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}} \sum_{(j^{sa}=j_{sa}+1)}^{\left(\boldsymbol{l_{sa}} - {}_{i}\boldsymbol{l}+1\right)} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right)
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

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$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} \left(\sum_{k=\ \boldsymbol{i}\boldsymbol{l}} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\ \boldsymbol{i}\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{sa})}^{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=\ \boldsymbol{i}\boldsymbol{l}} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\ \boldsymbol{i}\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

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$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot (j_{ik} - j$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - {}^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik}$ $\wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k = {}_{\boldsymbol{i}}\boldsymbol{l}}^{(\ )} \sum_{(j_s = 1)}^{(\ )} \sum_{j_{ik} = j_{sa}^{ik}} \sum_{(j^{sa} = j_{sa})}^{(\ )} \right.$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1)}^{(n_i - j_{ik} + 1)} \sum_{n_{sa} = \boldsymbol{n} - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +$$

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$$\left(\sum_{k=\ _{i}\boldsymbol{l}}^{(\ )}\sum_{(j_s=1)}^{\boldsymbol{l_{ik}}-\ _{i}\boldsymbol{l}+1}\sum_{j_{ik}=j_{sa}^{ik}+1}^{(\ )}\sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)}\sum_{n_{sa}=\boldsymbol{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{ik}+j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik}+\boldsymbol{l_s}+1)!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D+\boldsymbol{l_{sa}}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$$\Big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}=\ _{i}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge$$

$$D+j_{sa}^{ik}-\boldsymbol{n}<\boldsymbol{l_{ik}}\leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1\wedge$$

$$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+j_{sa}+s-\boldsymbol{n}-j_{sa})\vee$$

$$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}=\ _{i}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$$

$$D+j_{sa}-\boldsymbol{n}<\boldsymbol{l_{sa}}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1)\big)\wedge$$

$$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$$

$$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}\leq j_{sa}^{ik}-1\wedge$$

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$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ \ )} \sum_{(j_s=}
$$

$$
\left(\boldsymbol{l}_{\boldsymbol{s}} \ {}_{i}\boldsymbol{l}+1\right)
$$

$$
\sum_{j_{ik}=j^{sa}+\boldsymbol{l}_{ik}-\boldsymbol{l}_{sa}} \ \sum_{\boldsymbol{l}_{sa}-D)}
$$

$$
(n_i-j_{ik}) \qquad n_{ik}+j_{ik}-) \ \mathbb{k}
$$

$$
\sum_{n_i=\boldsymbol{n}+1}^{n} \ \sum_{j_{ik}+1)} \ \sum_{=\boldsymbol{n}-j^{sa}+1}
$$

$$
\frac{n_i - n_{ik}}{-2)! \ n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - a - \mathbb{k} - 1)!}{(j^{sa} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$\big((D \geq \quad < n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} - j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \quad > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

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$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \le D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)) \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \le j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \ge \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \le D - \boldsymbol{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

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$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$ {}_{fz}S_{j_s, \ldots, j_{sa}} = \sum_{k=\ {}_{i}\boldsymbol{l}} \sum_{(j_s=1)}^{(\ )} $$

$$ \sum_{j_{ik}=j^{sa}-\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}} \sum_{(j^{sa}-\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}^{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)} $$

$$ \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}-\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(\boldsymbol{n}-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} $$

$$ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot $$

$$ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot $$

$$ \frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot $$

$$ \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} $$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

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$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)} \sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{\left(\boldsymbol{l_{sa}}-\ {}_{i}\boldsymbol{l}+1\right)} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\left. \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot \right.
$$

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$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\left.\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 1 \Rightarrow$

$${}_{fz}S_{j_{sa}, j_{ik}, j^{sa}} = \left(\sum_{k = {}_{\boldsymbol{i}}\boldsymbol{l}} \sum_{(j_s = 1)}^{(\ )} \sum_{j_{ik} = j_{sa}^{ik}} \sum_{(j^{sa} = j_{sa})}^{(\ )}\right.$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1)}^{(n_i - j_{ik} + 1)} \sum_{n_{sa} = \boldsymbol{n} - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\left.\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!}\right) +$$

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$$\left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )}\sum_{(j_s=1)}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\ {}_{i}\boldsymbol{l}-j_{sa}+1}\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{(\ )}\sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)}\sum_{n_{sa}=\boldsymbol{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(\boldsymbol{n}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(n_{ik}-\boldsymbol{l_s}-1)!}{(n_{ik}-j_{ik}-\boldsymbol{l_s}+1)!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D+n_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq$ [illegible] $\boldsymbol{n} + 1$ [illegible]

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s$ [illegible] $j_{sa}^{ik} - 1 \leq j_{ik} \leq$ [illegible] $j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq$ [illegible] $^{sa} \leq \boldsymbol{n} + j_{sa} -$ [illegible] $\wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} +$ [illegible] $> \boldsymbol{l_s} \wedge \boldsymbol{l}$ [illegible] $+ j_{sa}^{ik} - j_{sa} = \boldsymbol{l}$ [illegible]

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l}$ [illegible] $\leq D + \boldsymbol{l}$ [illegible] j_{sa}^{ik} [illegible] $\boldsymbol{l} - 1 \wedge$

$D \geq$ [illegible] $< n \wedge I = \mathbb{k} >$ [illegible] $\wedge$

$j_{sa} \leq j_{sa}^{i}$ [illegible] $\wedge j_{sa}^{ik} < j_s$ [illegible] $- 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j$ [illegible] $j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} =$ [illegible] $+ \mathbb{k} \wedge$

[illegible] $\Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}^{(\ )}\sum_{(j^{sa}=j_{sa})}^{(\ )}\right.$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)}\ \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\left(\sum_{\boldsymbol{l}}\sum_{(j_s=1)}^{(\ )}\ \sum_{j_{ik}=\boldsymbol{l}_{ik}+j_{sa}^{ik}-\boldsymbol{l}_{sa}+1}^{\left(\boldsymbol{l_{ik}}+j_{sa}^{ik}-\boldsymbol{l}_{sa}+1\right)}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)}\ \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}+1)!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D \geq \boldsymbol{n} < \ \wedge \boldsymbol{l} = \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n} < \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1 \wedge$

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$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_{z}: z = 1 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=\ )}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(\ =j_{sa})}^{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+}^{n} \sum_{\boldsymbol{n}+\mathbb{k}-j_{ik}+}^{(n_i \quad +1)} \sum_{=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik} \quad -\mathbb{k}}
$$

$$
\frac{(n_i - \quad}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} \quad n_{sa} - \mathbb{k} \quad 1)!}{(j^{sa} \quad j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa}-1)!}{(\quad j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\ {}_{i}\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

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$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Big)$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1\Big) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} > D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_s \leq j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, j_{sa} \cdots, \mathbb{k}, j_{sa} \cdots, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s +$

$\mathbb{k}_z : z \cdots \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k = {}_{\boldsymbol{i}}\boldsymbol{l}}^{(\ )} \sum_{(j_s = 1)}^{(\ )}$$

$$\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_{ik}} - {}_{\boldsymbol{i}}\boldsymbol{l} + 1} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{ik} = \boldsymbol{n} + \mathbb{k} - j_{ik} + 1)}^{(n_i - j_{ik} + 1)} \sum_{n_{sa} = \boldsymbol{n} - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}}$$

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$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot ($$

$$\frac{(D + j_{sa} -$$

$$(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}}$$

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$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, j_{sa}, \cdots j_{sa}\} \wedge$

$s > 0 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = \mathbb{k} = \mathbb{k}_1 + \mathbb{k} \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)} \sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} \sum_{(j^{sa} = j_{sa} + 1)} \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} $$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l_{sa}}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{l_{sa}})!\cdot(D+j_{sa}-j^{sa}-s)!}$$

$$\Big((D\geq \boldsymbol{n}<n\wedge \boldsymbol{l}\neq {}_{\boldsymbol{i}}\boldsymbol{l}\wedge \boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}})\vee$$

$$(D\geq \boldsymbol{n}<\boldsymbol{n}\wedge \boldsymbol{l}\neq {}_{\boldsymbol{i}}\boldsymbol{l}\wedge \boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge \boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}}\wedge$$

$$\boldsymbol{l_i}+j_{sa}-s\leq \boldsymbol{n})\vee$$

$$(D\geq \boldsymbol{n}<\boldsymbol{n}\wedge \boldsymbol{l}\neq {}_{\boldsymbol{i}}\boldsymbol{l}\wedge \boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge \boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}}\wedge$$

$$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1)\Big)\wedge$$

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$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{\boldsymbol{l}=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )}
$$

$$
\sum_{j_{sa}=j_{sa}^{ik}-j_{sa}} \sum_{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}_{sa}+1)}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}_{sa}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}
$$

$$
\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_{ik}-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

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$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n})\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{j_{ik} = j_{sa}^{ik} + 1}^{(\boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 1)} \sum_{(j^{sa} = j_{sa} + 1)}^{n} \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

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$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - \quad)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - \quad - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} \quad)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - \quad s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\quad)} \sum_{(j_{ik} - \quad +1)}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} - \quad +1)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} \sum_{\quad}^{(j_{sa}^{ik} + 2)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s \quad k - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

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$$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$$

$$\boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$$

$$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$$

$$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$$

$$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$$

$$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z \left(j_{ik}, j^{sa}\right) \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = j_{sa} + 1)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

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$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \cdot$$

$$\sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{j_{ik} = j_{sa}^{ik}}^{(\boldsymbol{l} - \boldsymbol{l} + 1)} \sum_{(j^{sa} = \boldsymbol{l_s} + \boldsymbol{l} - \boldsymbol{l} + 1)}^{(n_i - \ \ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{=\boldsymbol{n} + \mathbb{k} - j_s + 1)}^{}$$

$$n_{is} \quad - j_{ik} - \quad + \quad j^{sa} - \mathbb{k}_2)$$

$$\sum_{= \boldsymbol{n} + \mathbb{k}_2 - j}^{} \quad (n_{sa} = \boldsymbol{n} - j^{sa} + 1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - \quad)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{{}_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(\quad - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

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$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} \leq D + j_{sa}^{ik} - \boldsymbol{n} \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{\boldsymbol{l}=\boldsymbol{l}} \sum_{(j_s=2)}^{(j_{ik}+1)} $$

$$ \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(j_{ik}+j_{sa}-\boldsymbol{l})} $$

$$ \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} $$

$$ \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} $$

$$ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot $$

$$ \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot $$

$$ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot $$

$$ \frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot $$

$$ \frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot $$

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$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-j_s-1)!}{(n_i-j_s+1)!}\cdot$$

$$\frac{(n_{ik}-1)!}{(j_{ik}-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik}+1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$+ j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

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$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{sa}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge$

$\boldsymbol{l_{sa}} \le D + j_{sa} - \boldsymbol{n} \wedge \boldsymbol{l_i} \le D + s - \boldsymbol{n})) \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz(j_s, j^{sa}) = \sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

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$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=j_{sa}^{ik}}^{(\boldsymbol{l}-\boldsymbol{l}+1)} \sum_{j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i}$$

$$n_{is}$$

$$\sum_{=\boldsymbol{n}+\mathbb{k}_2-j_{ik}-1}^{} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - \quad)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(\quad - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _i\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

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$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \ge \boldsymbol{n} < n \wedge \boldsymbol{l} \ne {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \le D - \boldsymbol{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \le D + s - \boldsymbol{n}) \vee$

$(D \ge \boldsymbol{n} < n \wedge \boldsymbol{l} \ne {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \le D - \boldsymbol{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \le D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)) \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, \cdots, j_{sa}^{i}\} \wedge$

$s \ge 3 \wedge \boldsymbol{s} = \mathbb{k} \wedge$

$\mathbb{k}_z; z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l} - j_{sa} + 1} \sum_{j_{ik} = j_{sa}^{ik} + 1}^{(\ )} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{n} \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)} $$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \cdots - 1)! \cdot (\boldsymbol{n} - \cdots)!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \cdots - 1)!}{\cdots + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_s - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \cdots - \boldsymbol{l_{sa}})! \cdot (\cdots + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)\Big) \wedge$

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$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{\boldsymbol{l}=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )}
$$

$$
\sum_{j_{ik} = j_{sa}^{ik}+1}^{\boldsymbol{l}_{ik}+1} \sum_{(j_{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} - j_{ik} + 1}^{n_{is} + j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

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$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n})\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$ {}_{fz}S_{j_s \ldots j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} $$

$$ \sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \ \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} $$

$$ \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \ \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} $$

$$ \sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \ \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} $$

$$ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot $$

$$ \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot $$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-\right.}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} \geq \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{sa}} \leq D+j_{sa}-\boldsymbol{n} \wedge \boldsymbol{l_i} \leq D+s-\boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1$ $_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{s}$ $\wedge$

$s>3 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z$ $2 \wedge \mathbb{k}=\mathbb{k}_1$ $\mathbb{k}_2 \Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} \quad _{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} \quad (j^{sa} + j_{s} - j_{ik} - j_{sa})!}$$

$$\frac{(D + \quad - \boldsymbol{l_{sa}} \quad}{(D + j^{sa} \quad \boldsymbol{n} - \boldsymbol{l_{sa}}) \quad (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \quad _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j^{ik} \quad < j_{ik} \leq \quad a + j_{sa}^{ik} - j \quad \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} \quad _{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} \quad = \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} \leq D + j_{sa}^{ik} - \boldsymbol{n} \quad \leq D + s - \boldsymbol{n}$

$D \quad \boldsymbol{n} < n \wedge \quad = \mathbb{k} >= \quad \wedge$

$j_{sa} \quad j_{sa}^{i} - 1 \wedge j_{sa}^{ik} \quad j_{sa} - 1 \quad = j_{sa}^{ik} - 1 \wedge$

$\quad \{j_{sa}^{s}, \mathbb{k} \quad _{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots \quad _{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s \quad \mathbb{k} \wedge$

$\mathbb{k}_2 \quad = \quad \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = 2)}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\quad)}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(j_{sa}-\boldsymbol{l}-1)!}{(j_{sa}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}+1\right)!}{(\boldsymbol{l_{ik}}+\boldsymbol{l_{ik}}-j_{sa}^{ik})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\ \sum_{(j_s=2)}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1}\ \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\ )}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

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$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s -$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!}$$

$$\frac{(D + j_{sa} -$$

$$(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \cdot (\boldsymbol{n} + j_{sa} - s)!$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} -$ $\wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}}$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge$

$\boldsymbol{l_{sa}} + D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_i} \leq D + s - \boldsymbol{n}\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$z > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = 2)}$$

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$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_{is}-n_{ik}}{(j_{ik}-j_s}$$

$$\frac{(n_{ik}}{(j^{sa}-j_{ik}}$$

$$\frac{(n_{sa}}{(n_{sa}+j}$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - \boldsymbol{l} + 1)! \cdot (\boldsymbol{l} - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa}^{ik} - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(j_{sa} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D - j^{sa} - \boldsymbol{n} - \boldsymbol{l_i} - s)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

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$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, {}^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}} \quad j_{sa}+2)} \quad (j_s
$$

$$
\sum_{j_{ik} \quad + j_{sa}^{ik}-1} \quad (\quad -j_{sa}^{ik})
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}
$$

$$
\sum_{n_{is}+j_s \quad k-\mathbb{k}_1}^{} \quad (n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2) \sum_{}^{}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1} \quad \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

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$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\}$

$s > 3 \wedge \boldsymbol{s} = s +$

$\mathbb{k} z = 2 \wedge = \mathbb{k}_1 + \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} - \boldsymbol{l} - j_{sa}^{ik} + 2)} \sum_{(j_s=2)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )} \left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right) \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} $$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \quad - s)!}{(D + j^{sa} - \quad)! \cdot (\boldsymbol{n} + \quad - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \quad _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \quad + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + \quad j_s + j_{sa}^{ik} - 1 \leq \quad \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq \quad ^{sa} \leq \boldsymbol{n} + \quad - \quad \wedge$

$\boldsymbol{l_{ik}} - \quad ^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s \quad \boldsymbol{n})\Big) \wedge$

$D \geq \quad n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - \quad \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\quad , j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)} \sum_{(j_s=2)}
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+}^{n_{ik}+j_{ik}-j_{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{sa}^{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

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$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{\quad} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}
$$

$$
\sum_{j_{ik}=j_s+j_{sa}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}}+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_i-j_s+1)}
$$

$$
\sum_{(n_{is}+j_s-j_{ik}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}-j^{sa}-j_{ik}+1}^{} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \ge \boldsymbol{n} < n \wedge \boldsymbol{l} \ne {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \le D - \boldsymbol{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

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$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} \leq D + j_{sa}^{ik} - \boldsymbol{n} \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$\sum_{j_{ik}=j_{sa}^{ik}-1}^{j_{sa}+j_{sa}^{ik}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

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$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_i} \leq D+s-\boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{sa}}-j_{sa}+1 > \boldsymbol{l_s} \wedge$

$\boldsymbol{l_{sa}} \leq D+j_{sa}-\boldsymbol{n} \wedge \boldsymbol{l_i} \leq D+s-\boldsymbol{n})\Big)$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} = j_{sa} - \ \wedge j_{sa}^{s} = j_{sa} \ 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\}$

$s > 3 \wedge \boldsymbol{s} = s + \ \wedge$

$\mathbb{k}_2 : z = 2 \wedge \ = \mathbb{k}_1 + \ \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - \boldsymbol{l} + 1)! \cdot (\boldsymbol{l} - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa} + 1)!}{(j_s + \boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa})! \cdot (j_{ik} - j_{sa}^{ik} - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(j_{sa} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D - j^{sa} - \boldsymbol{n} - \boldsymbol{l})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \quad D + j_{sa} -$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + \quad - 1 \leq j_{ik} \leq \quad sa + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq \quad \leq \boldsymbol{n} + j_{sa} -$

$\boldsymbol{l} \quad - j_{sa}^{ik} + \quad \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} \quad j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \quad >= 0 \wedge$

$j_{sa} \leq \quad - 1 \wedge j_{sa}^{ik} = \quad - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa} \quad _a, j_{sa}, \quad j_{sa}^{i}\} \wedge$

$s \quad \wedge \quad = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \quad = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ \ )} \right.$$

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$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)} \sum_{(j^{sa}=j_{sa}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_{is}-n_{ik}}{(j_{ik}-j_s}$$

$$\frac{(n_{ik}}{(j^{sa}-j_{ik}}$$

$$\frac{(n_{sa}}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+}$$

$$-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}\right.$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=j_{sa}+2)}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - 1)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l} + 1)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{l} - \boldsymbol{l_{sa}})! \cdot (j_{sa} - j^{sa} - s)!} +$$

$$\sum_{(j_s = j_{ik} - \boldsymbol{l} + 1)} \sum_{j_{ik} = j_{sa}^{ik} + 1} \sum_{(j^{sa} = \boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 2)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

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$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$\mathbb{c}_{ik,j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )}$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = j_{sa} + 1)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = {}^{ik}_{a} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik}+1)}^{(\ )} \right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\left.\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot\right)$$

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$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$$\left(\sum_{k=\boldsymbol{l}}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ \ )}\ \sum_{j_{ik}=}^{j^{sa}+j_{sa}^{ik}-1}\ \sum_{(j^{sa}=j_{sa}}^{(\boldsymbol{l_s}-\ \ -\boldsymbol{l})}\right.$$

$$\sum_{=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}-\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$+j_s-j_{ik}-1\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+}^{\ -j_{ik}+1}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ \ )}\ \sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\ \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-\boldsymbol{l}-1)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l}-1)!}{(D-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}-\boldsymbol{l_{sa}}-j_{sa}^{ik}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$D \geq \boldsymbol{l} < n \wedge \boldsymbol{l} \neq \boldsymbol{l_{ik}} \leq \boldsymbol{l_{sa}} \leq D + j_{sa} -$

$1 \leq j_s \leq j_{ik} - j_{sa} + 1 \wedge j_s - j_{sa}^{ik} - \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + - j_{sa}^{ik} \leq j^{sa} \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq < n \wedge l - = 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\{s \quad j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \right.
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{ik}=\boldsymbol{n}-j^{sa}-\mathbb{k}_2)}^{n_{ik}+j_{ik}-j^{sa}+j_{ik}}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik})} \right.
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+2)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{ik}=\boldsymbol{n}-j^{sa}-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{sa} - 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{j_{ik}=j^{sa}-j_{sa}^{ik}} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

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$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$\Big((D\geq \boldsymbol{n}<n\wedge \boldsymbol{l}\neq\ {}_{i}\boldsymbol{l}\wedge \boldsymbol{l_{sa}}\leq D+j_{sa}-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\big)\vee$

$(D\geq \boldsymbol{n}<n\wedge \boldsymbol{l}\neq\ {}_{i}\boldsymbol{l}\wedge \boldsymbol{l_{sa}}\leq D+j_{sa}-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\big)\wedge$

$D\geq \boldsymbol{n}<n\wedge I=\mathbb{k}>=0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-$

$\boldsymbol{s}:\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\wedge$

$s>3\wedge \boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z: z=2\wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\Bigg(\sum_{k=\boldsymbol{l}}\ \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ \ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\ \sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-1)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa})!}\Bigg)+$$

$$\left(\sum_{k=1}^{(j_{ik}-j_{sa}^{ik}+1)}\ \sum_{(j_s=2)}^{j^{sa}+j_{sa}^{ik}-1}\ \sum_{j_{ik}=j_{sa}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}\ \sum_{(\quad -j_{sa}+2)}^{}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

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$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{j_{ik}=j_{sa}^{ik}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}+\mathbb{k}_2-1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-j_s-1)!}{(\quad)!\cdot(n_i-\quad-j_s+1)!}\cdot$$

$$\frac{(\quad-n_{ik}-\quad)!}{(j_{ik}-\quad-1)!\cdot(\quad+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(\quad-n_{sa}-1)!}{(\quad-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})}\sum_{(j_s=2)}\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}\sum_{(j^{sa}=j_{sa}+2)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(\boldsymbol{l_s}-j_s+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_{ik}}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \quad D+j_{sa}-\boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq \quad a+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+\quad -j_{sa}^{ik} \leq j^{sa}+\boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 \leq \quad \wedge \boldsymbol{l_{sa}}+\quad ik-j_{sa} \geq \boldsymbol{l_{ik}} \wedge$

$D \geq \quad < n \wedge I = \mathbb{k} \quad = 0 \wedge$

$j_{sa} \leq j_{sa}^{i} \quad 1 \wedge j_{sa}^{ik} = j_s \quad -1 \wedge j_{sa}^{s} = j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_s^s \quad \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2 \quad , j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} \quad \leq +\mathbb{k} \wedge$

$\quad \cdot z = 2 \quad \mathbb{k} = \mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ \ )}\ \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}\right.$$

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$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is}}$$

$$\frac{(n_{is} - n_{ik}}{(j_{ik} - j_s}$$

$$\frac{(n_{ik} - n_{sa} - 1)}{(j^{sa} - j_{ik} - 1)! \cdot (}$$

$$\frac{(n_{sa}}{(n_{sa} + j_{sa}}$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D +$$

$$- \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

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$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s -$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} -$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}}$$

$$\frac{}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})($$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq$ $\leq j^{sa} + j_{sa}^{ik}$ $- j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} =$ $\wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa}$ $\wedge j_{sa}^{s} = j_{sa}^{ik}$ $1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s +$ $\mathbb{k}$

$\mathbb{k}$ $z = 2 \wedge$ $\mathbb{k}$ $\mathbb{k}_1 +$ $\mathbb{k}$ $\Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \quad - s)!}{(D + j^{sa} - \quad)! \cdot (\boldsymbol{n} + \quad - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \quad _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} \quad _{sa} \quad \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa} = j_{sa}^{ik} - 1$

$\boldsymbol{s}: \{j_{sa}^{s} \quad _1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa} \quad , j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s \quad \wedge$

$\mathbb{k}_z: \quad 2 \wedge \mathbb{k} = \mathbb{k}_1 \quad \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)} \right.$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}{(\boldsymbol{n}+j^{sa}-\boldsymbol{n}-j^{sa})!\cdot(\boldsymbol{n}-j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\Bigg(\sum_{k=}^{(\ )}\ \sum_{=j_{ik}-j_s}^{\boldsymbol{l_s}+}\ \sum_{j_{sa}^{ik}+1}^{-\boldsymbol{l}}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

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$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ {}_{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_{sa}}\leq D+j_{sa}-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>=0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\right\}\wedge$

$s>3\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$

$$j_{sa}=\left(\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{j_{ik}=j_{sa}^{ik}+1}^{(\ )}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{n}\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}\right.$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\left.\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot\right.$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})}\sum_{(j_s=2)}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{j_{ik}=j_{sa}^{ik}+(}^{(}\sum_{(j^{sa}=j_{ik}+}^{)}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_i=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-}$$

$$n_{is}-j_{ik}-\mathbb{k}_1+\qquad\qquad j^{sa}-\mathbb{k}_2)$$

$$\sum_{=\boldsymbol{n}+\mathbb{k}_2-j_{}}^{}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-\quad)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{{}_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(\quad-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1}\sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\quad)}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l}-1)!}{(\boldsymbol{l}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik}+1)!}{(\boldsymbol{l_{ik}}+\boldsymbol{l_{ik}}-j_{sa}^{ik})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$$\Big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\boldsymbol{l}\wedge\boldsymbol{l_{sa}}\leq D+j_{sa}-\boldsymbol{n}\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_s}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\Big)\vee$$

$$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\boldsymbol{l}\wedge\boldsymbol{l_{sa}}\leq D+j_{sa}-\boldsymbol{n}\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\Big)\Big)\wedge$$

$$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>=0\wedge$$

$$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$$

$$\boldsymbol{s}\colon\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\}\wedge$$

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$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik} = j_{sa}^{ik}+1}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s)}^{n}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_1}^{j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{(\ )}
$$

$$
\sum_{j^{sa} = j_{ik} + 1}^{n} \sum_{(n_{sa} = j^{sa} + 1)}^{(n_{ik} - j_{ik} + 1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{ik} - 1)!}{(j_{ik} - j_s)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = 2)}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{j_{ik} = j_{sa}^{ik}+1}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik} + 1)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} \right.
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-1)!\cdot(\boldsymbol{n}-)!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j-\boldsymbol{l_s})!\cdot(-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})!\,(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{}\ \sum_{(j_s=2)}^{(-\boldsymbol{l}+1)}\ \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-\boldsymbol{l_{sa}}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k}\ \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik})}\ \sum_{j_{sa}^{ik}+2}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\ \sum^{(\ )}\ \sum_{(j^{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

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$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{z}S_{j_s, j_{ik}, \cdots} = \left(\sum_{k=\boldsymbol{l}}^{\left(\boldsymbol{l}-j_{sa}^{ik}+2\right)} \sum_{(j_s=2)} \right.
$$

$$
\sum_{j_{ik}=} {}^{j_{sa}^{ik}-1} \sum^{\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum^{(n_i-j_s+1)}_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

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$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\Bigg(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} - \boldsymbol{l} - j_{sa}^{ik} + 2)} \sum_{(j_s=2)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_2} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - j_s - 1)!}{(\quad - 2)! \cdot (\quad - n_{ik} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (\quad + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg)$$

$D \geq \quad n \wedge \boldsymbol{l} \neq \quad \boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{i} \quad j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$\quad \quad j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

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$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=z}
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}} \sum_{=j_{ik}+j_{sa}-j_{sa}^{ik})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}} \sum_{=\boldsymbol{n}+\mathbb{k}-j_s+1)}
$$

$$
n_{is} \quad j_{ik}-\mathbb{k}_1 \quad ;^{sa}-\mathbb{k}_2)
$$

$$
\sum_{\boldsymbol{n}+\mathbb{k}_2-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - \quad)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(\quad - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < \quad \boldsymbol{l} \neq \quad {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

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$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \right.
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(\quad -j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{+j_s-j_{ik}}^{} \sum_{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+}^{} \sum_{-j_{ik}+1 \quad (n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{}
$$

$$
\frac{(n_i - n_{is} - 1)!}{2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \right.
$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(j_s-\boldsymbol{l}-1)!}{(j_s-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}-\boldsymbol{l_{sa}}-j_{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{l} < n \wedge \boldsymbol{l} \neq {}_{i^k}\boldsymbol{l_{sa}} \leq D + j_{sa} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s - j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + \boldsymbol{n} - j_{sa}^{ik} \leq j^{sa} + \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \boldsymbol{n} > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} - j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{l} < n \wedge l - \boldsymbol{l} = 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\{j_s, \boldsymbol{l}, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)} \right.
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)} \right. \sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}-1)!\cdot(j_{ik}-j_s-j_{sa}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - j_{sa} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} - 1 = 0 \wedge$

$j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa}^{s} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \ldots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)} \right.$$

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$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )} \left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is}}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)}{(j^{sa} - j_{ik} - 1)! \cdot (+ j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=j_s+j_{sa}^{ik}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

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$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}$$

$$\frac{(D+j^{sa}-\boldsymbol{n}$$

$$+\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-$$

$$\sum_{(j_s=2)}^{}\sum_{j_{ik}-$$

$$\sum_{}^{(\boldsymbol{l_{sa}}}$$

$$\sum_{j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

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$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Big)$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa}$ $\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j$ $- s = \boldsymbol{l}$ $\wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n}$ $1)\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa}$ $\wedge j_{sa}^{s} = j_{sa}$ $1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\}$

$s > 3 \wedge \boldsymbol{s} = s +$ $\wedge$

$\mathbb{k} \cdot z = 2 \wedge$ $= \mathbb{k}_1 +$ $\Rightarrow$

$$fz\mathcal{S}_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - 1)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l})! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - j_{ik} - \boldsymbol{l_{sa}})! \cdot (j_{ik} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{(j_s = j_{ik}+1)} \sum_{j_{ik}=j_{ik}+1} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+2)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

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$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{n} - j_{sa}^{ik} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{n} - 1)$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} - \boldsymbol{l} = 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\{s, \ldots, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ \ )}
\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\ \ \ -j_s+1)}^{(n_i-j_s+1)}
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+}^{j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_{\cdot}-n_{is}-1)!}{(j_s-2)!\cdot(n_i \quad j_s+1)!}\cdot
\frac{(n_{is} \quad _{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is} \quad j_s-n_{ik}-j_{ik})!}\cdot
\frac{(n_{ik} \quad n_{sa}-1)!}{(j^{sa} \quad _{ik}-1)! \quad n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+
$$

$$
\sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ \ )}
\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(j_{sa}^{ik} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - 1)! \cdot (j^{sa} - j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} < D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_i} + s - \boldsymbol{n} - j_{sa}) \vee$

$(D \geq \boldsymbol{n} \leq n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

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$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{l}-2)}^{(\boldsymbol{l_s}+\boldsymbol{l}-\boldsymbol{l})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=n_{is}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+j_{ik}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{n} - \boldsymbol{l} - 1)!}{(\boldsymbol{n} - j_s - \boldsymbol{l}_s + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} + \boldsymbol{l_{ik}} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} - j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$$

$$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$$

$$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{sa}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge$$

$$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$$

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$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \ldots) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{s} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = 2)}
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.
$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{s}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-)!\cdot(j_{sa}+j_{sa}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{l_{sa}})!\cdot(+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{j_{ik}=}^{-\boldsymbol{l}+1}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

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$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{\left(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}\right)!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\cdot$$

$\Big((D\geq \boldsymbol{n}<n\wedge \boldsymbol{l}\neq {}_{\boldsymbol{i}}\boldsymbol{l}\wedge \boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge \boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}\wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1)\vee$

$(D\geq \boldsymbol{n}<n\wedge \boldsymbol{l}\neq {}_{\boldsymbol{i}}\boldsymbol{l}\wedge \boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge \boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}\wedge$

$D+j_{sa}-\boldsymbol{n}<\boldsymbol{l_{sa}}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1)\Big)$

$D\geq \boldsymbol{n}<n\wedge I=\mathbb{k}_1=0\wedge$

$j_{sa}^{ik}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}^{s}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa}^{s},\cdots,j_{sa}^{i}\}\wedge$

$>3\wedge s+\mathbb{k}\wedge$

$\mathbb{k}_z: z=2\wedge \mathbb{k}_2\Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-1}\sum_{j_{ik}=j_{sa}^{ik}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(j_s - \boldsymbol{l} - 1)!}{(j_s - \boldsymbol{l} - 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} - \boldsymbol{l_{sa}} - j_{sa})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{l_{sa}}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\Big((D\geq \boldsymbol{n}<n\wedge \boldsymbol{l}\neq {}_{\boldsymbol{i}}\boldsymbol{l}\wedge \boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge$$

$$D+j_{sa}-\boldsymbol{n}<\boldsymbol{l_{sa}}\leq D+\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{n}-j_{sa}^{ik}\wedge$$

$$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_{sa}}+s-\boldsymbol{n}-j_{sa})\vee$$

$$(D\geq \boldsymbol{n}<n\wedge \boldsymbol{l}\neq {}_{\boldsymbol{i}}\boldsymbol{l}\wedge \boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$$

$$D+j_{sa}-\boldsymbol{n}<\boldsymbol{l_{sa}}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1)\vee$$

$$(D\geq \boldsymbol{n}<n\wedge \boldsymbol{l}\neq {}_{\boldsymbol{i}}\boldsymbol{l}\wedge \boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge \boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}}\wedge$$

$$D+j_{sa}-\boldsymbol{n}<\boldsymbol{l_{sa}}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1)\big)\wedge$$

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$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{\boldsymbol{l}=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s = j_{ik}}^{j_{sa}^{ik}+1)}
$$

$$
\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik} \quad j_{sa}-1 \quad (\boldsymbol{l_{sa}}
$$

$$
\sum_{ik}+1 \qquad \sum_{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)
$$

$$
(\ \ +1)
$$

$$
\sum^{n} \qquad \sum_{n_i \quad \mathbb{k}\ (n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}
$$

$$
n_{is}+ \quad j_{ik}-\mathbb{k}_1 \quad (n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)
$$

$$
\sum_{n_{ik}=\boldsymbol{n}\quad 2-j_{ik}+1 \quad (n_{sa}=\boldsymbol{n}-j^{sa}+1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

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$$\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \quad \sum_{(j^{sa}=j_{ik}+j_{sa}-j}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \quad \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$$\left(\boldsymbol{l} \geq \boldsymbol{n} \wedge n \wedge \boldsymbol{l} \neq \ _i\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge\right.$$

$$1 \leq j_s \leq j - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$$

$$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$$

$$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$$

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$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$j_{s,j_{ik},j^{s}} = \sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

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$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\cdot$$

$$\sum_{k=\boldsymbol{l}}\sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-\ )}$$

$$\sum_{\ =\boldsymbol{n}+\mathbb{k}_2-j_{sa}+1}^{n_{is}-j_{ik}-\mathbb{k}_1+\ +j^{sa}-\mathbb{k}_2)}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-\ )!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(\ _{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(\ -j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\Big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ _{i}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

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$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{sa}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_{sa}} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \ >= 0 \wedge$

$j_{sa} \leq j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}, j_{sa}, j_{sa}^{i}\} \wedge$

$s > 0 \wedge = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = 2)}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(n_{sa}-j^{sa})!}\cdot$$

$$\frac{(j_s-\boldsymbol{l}-1)!}{(j_s-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}+1\right)!}{(j_{ik}+\boldsymbol{l_{ik}}-j_s-j_{sa}^{ik}+1)!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\ \sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

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$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!}$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)\big) \wedge$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\big) \wedge$

$\boldsymbol{s} \geq \boldsymbol{n} \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{(j_s=2)}
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D}
$$

$$
\sum_{n_i=\boldsymbol{n}}^{n} \sum_{=\boldsymbol{n}+}^{(j_s+1)}
$$

$$
\sum_{n_{is}+j_s-j_{ik}}^{} \sum_{}^{(n_{ik}+j_{ik}-}
$$

$$
\sum_{j_{ik}+1}^{} \sum_{=\boldsymbol{n}-j^{sa}+1)}^{}
$$

$$
\frac{(n_i - n_{is}}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot
$$

$$
\frac{{}_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot
$$

$$
\frac{(n_{}-n_{sa}-1)!}{{}_{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+
$$

$$
\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}
$$

GÜLDÜMYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - \boldsymbol{n} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (n_{sa} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{n} - \boldsymbol{l} - 1)!}{(\boldsymbol{n} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} - \boldsymbol{l_{sa}} - j_{sa}^{ik} + \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$$\Big((D \leq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \quad \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} +$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - \quad \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \quad = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} \quad j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$$

$$D + \quad \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{n} - j_{sa}^{ik} \wedge$$

$$D + s - \boldsymbol{n} \quad \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$$

$$\quad n \wedge \boldsymbol{l} \neq \quad _i\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$$

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$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{(j_s=2)}
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

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$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}} \sum_{(j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}-j_{sa}+1)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_{ik}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_{ik}-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

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$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \le D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \le D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$

$(D \ge \boldsymbol{n} < n \wedge \boldsymbol{l} \ne \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \le D - \boldsymbol{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \le D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}
\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1}
\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}
\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}
\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.
$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}-j_{sa}+1)!\cdot(j_{ik}-j_s-j_{sa}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-j_{sa}+1)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=\boldsymbol{l}}\ \sum_{\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}$$

$$\boldsymbol{l_{sa}}+j_{sa}^{ik}\ j_{sa}+1 \qquad \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

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$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D+j_{sa}-\boldsymbol{n} < \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{sa}}-j_{sa}+1 > \boldsymbol{l_s} \wedge$

$D+j_{sa}-\boldsymbol{n} < \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}$ $1 \wedge$

$D+s-\boldsymbol{n} < \boldsymbol{l_i} \leq D+\boldsymbol{l_{sa}}$ $s-\boldsymbol{n}-j_{sa})$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D$ $+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}$ $\wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}$ $\leq \boldsymbol{n}$ $j_{sa}-s$

$D+$ $-\boldsymbol{n} < \boldsymbol{l_{sa}} \leq$ $+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1)\Big) \wedge$

$D \geq \boldsymbol{n} <$ $\wedge I = \mathbb{k} >=$ $\wedge$

$j_{sa} \leq$ $-1 \wedge j_{sa}$ $j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j$ $\mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$3 \wedge$ $s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{(j_s=2)}$$

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$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is} + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s + 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s - \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{\boldsymbol{l_s}-\boldsymbol{l}+1} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\cdots-1)!\cdot(\boldsymbol{n}-\cdots)!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\cdots-1)!}{\cdots(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\cdots-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(\cdots+\boldsymbol{l_{sa}}-\cdots-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D-\cdots-j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \cdots \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}\cdots \wedge$

$1 \cdots j_s \leq j_{ik}\cdots_{sa}^{ik}+1 \wedge \cdots+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}\cdots j_{sa}-j_{sa}^{ik} \leq j\cdots \leq \boldsymbol{n}+j_s\cdots \wedge$

$\boldsymbol{l_{ik}}-j_{sa}\cdots 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}\cdots j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s = \boldsymbol{l_{sa}} \wedge$

$D+j_{sa}-\boldsymbol{n}\cdots \leq \cdots+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1 \wedge$

$D\cdots \boldsymbol{n}\cdots \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i}\cdots \wedge j_{sa}^{ik} = j_{sa}-1 \wedge j_{sa}^{s} = j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\cdots-1)!\cdot(\boldsymbol{n}-\cdots)!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\cdots-1)!}{\cdots(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\cdots-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(\cdots+\boldsymbol{l_{sa}}-\cdots-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D-\cdots-j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \cdots \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}\cdots \wedge$

$1 \cdots j_s \leq j_{ik} \cdots_{sa}^{ik}+1 \wedge \cdots+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik} \cdots j_{sa}-j_{sa}^{ik} \leq j \cdots \leq \boldsymbol{n}+j_s \cdots \wedge$

$\boldsymbol{l_{ik}}-j_{sa} \cdots 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} \cdots j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s = \boldsymbol{l_{sa}} \wedge$

$D+j_{sa}-\boldsymbol{n} \cdots \leq \cdots+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1 \wedge$

$D \cdots \boldsymbol{n} \cdots \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} \cdots \wedge j_{sa}^{ik} = j_{sa}-1 \wedge j_{sa}^{s} = j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik})} \sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_2} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+j_{ik}-n_{ik}-\mathbb{k}_2)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}+j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{sa}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}-1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j^{ik} \leq j^{sa} \leq D+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}+j_{sa}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n} < \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1 \wedge$

$\boldsymbol{s} \leq \boldsymbol{s} \wedge I=\mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

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$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-j_{sa})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{n}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\boldsymbol{n}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa} \geq 1 \leq j_{ik} \leq j_{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+\boldsymbol{n}-j_{sa}^{ik} \leq j^{sa} < \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} \geq \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n} < \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1 \wedge$

$\boldsymbol{n} \geq \boldsymbol{n} < n \wedge I=\mathbb{k} >= 1 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$z > 3 \wedge s = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

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$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - \quad - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} \quad + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} \quad 1)!}{(j_{ik} - j_s \quad 1)! \cdot (n_{is} + j_s \quad n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} \quad n_{sa} - 1)!}{(j^{sa} - j_{ik} \quad 1)! \cdot (n \quad + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} \quad 1)!}{(n_{sa} + j \quad - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j \quad \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\ )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{l_{sa}}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{sa}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n} < \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}\} \wedge$

$s > s \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}\sum_{(j_s=2)}^{(\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik})}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{sa}^{ik} - \boldsymbol{l_s})! \cdot (\boldsymbol{n} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ \ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

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$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}-$$

$$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ {}_{i}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$2\leq\boldsymbol{l}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\geq j_{ik}\leq j^{sa}$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{$$

$$D+j_{sa}-\boldsymbol{n}<\boldsymbol{l_{sa}}\leq D+$$

$$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>=0\wedge$$

$$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}$$

$$\boldsymbol{s}$$

$$s\geq 3\wedge\boldsymbol{s}=s+\mathbb{k}$$

$$\mathbb{k}_z\colon z=$$

$${}_{fz}S_{j_s,j_{ik},j^{sa}}=\left(\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}\right.$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - 1)!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - s)!}{(D + j^{sa} - \boldsymbol{n} - s)! \cdot (\boldsymbol{n} - j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=\boldsymbol{l}}^{(\ \ )}\ \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{j_{ik}=j_{sa}^{ik}+1}^{(\ \ )}\ \sum_{(\ \ )}^{\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1}$$

$$\sum_{\ \ =\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+}^{\ \ +j_s-j_{ik}-1}\ \sum_{(\ \ =j_{ik}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+}^{\ \ -j_{ik}+1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ {}_{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1\leq\boldsymbol{l}\leq\ {}_{\boldsymbol{i}}\boldsymbol{l}-1\wedge$$

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$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \le D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j_{sa}} = \sum_{k=\boldsymbol{l}}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{k=j_{sa}^{ik}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

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$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ {}_{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$2\leq\boldsymbol{l}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge$

$D+j_{sa}-\boldsymbol{n}<\boldsymbol{l_{sa}}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>=0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\right\}\wedge$

$s>3\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2$

$$_{fz}S_{j_s,j_{ik},j^{sa}}=\left(\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{}\right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\left.\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot\right)$$

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$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$$\left(\sum_{k=\boldsymbol{l}}^{(\ \)}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{j^{sa}+j_{sa}^{ik}-}\sum_{j_{ik}=j_{sa}^{}}^{(\boldsymbol{l_s}+j_{}-\boldsymbol{l})}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}}\right.$$

$$\sum_{:=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}-\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+}^{+j_s-j_{ik}-}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\ \)}\sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-j_{ik}-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{sa}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(j_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-\boldsymbol{l}-1)!}{(j_{sa}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j_{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l} \leq \boldsymbol{n}-1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-\boldsymbol{l_s}+1=\boldsymbol{l_s}+\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}} \wedge$

$D+j_{sa}-\boldsymbol{n} \leq \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1 \wedge$

$\boldsymbol{n}>\boldsymbol{n}-1 \wedge I=\mathbb{k}>=0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s>3 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

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$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-[illegible])}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_i\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq z \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

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$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} \ldots +1)} \right.
$$

$$
\sum_{j_{ik} \ldots {}^{sa} + j_{sa}^{ik} - j_{sa} \ldots} \sum^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})} \ldots + \boldsymbol{n} - D)
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s \ldots {}_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

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$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})}\sum_{(j_s=2)}\sum_{j_{ik}=j^{sa}+j_{sa}^{lk}-j_{sa}}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_{ik}-\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq {}_{\boldsymbol{i}}\boldsymbol{l} - 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} - j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = \mathbb{k}_1 + \mathbb{k} \wedge$

$\mathbb{k}_z: \mathbb{k}_2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - \boldsymbol{n} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (n_{sa} - j^{sa})!} \cdot$$

$$\frac{\boldsymbol{l} - 1)!}{(\boldsymbol{l} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} + \boldsymbol{l_{ik}} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D - j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \quad \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} +$$

$$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} \quad _{sa} - \boldsymbol{n} \quad \boldsymbol{l_{sa}} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - \quad ^{ik} \leq j^{sa} \leq \quad + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} \quad + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$$

$$D + j_{sa} - \quad \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$$

$$\quad n \wedge \boldsymbol{l} \neq \quad _i \boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

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$\boldsymbol{l_{sa}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(n_i - j_s + 1)} \right.
$$

$$
\sum_{(j_{ik} = j^{sa} + j_{sa} - \boldsymbol{l})}^{(j_{sa} - \boldsymbol{l})} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

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$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)}\sum_{(j_s=2)}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-j_s+1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-j_s+j_{ik})!}{(j_{ik}-j_s+1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}+j_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-n_{sa}+1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_{ik}+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa} + 1)!}{(j_s + \boldsymbol{l_{ik}} - \boldsymbol{l} - j_{sa})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(j_{sa} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j_{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} - s)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\mathbb{k}}^{(j_{ik}-j_{ik})} \sum_{(j_s=2)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

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$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} -$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq {}_{i}\boldsymbol{l} - 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}}$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq {}_{i}\boldsymbol{l} - 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{sa}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s}$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} = 0 \wedge$

$j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa}^{i} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \ldots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} \ldots s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \ldots \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \sum_{(j_s = 2)}$$

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$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i - 1)}{(j_s - 2) \cdot (n_i - n_{is} + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s) \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - j_{ik})}{(j^{sa} - j_{ik} - 1)! \cdot (n_{sa} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s - \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \quad \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D \quad \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq \quad - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

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$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i} \right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \quad \sum_{(j^{sa} = j_{ik} + j_{sa} -}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \quad \sum_{(\ - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{+ j_s - j_{ik}} \quad \sum_{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \ - j_{ik} + 1} \quad \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.
$$

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$$\sum_{j_{ik}=\boldsymbol{l_{ik}}-\boldsymbol{l}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is}}$$

$$\frac{(n_{is} - n_{ik}}{(j_{ik} - j_s}$$

$$\frac{(n_{ik} - n_{sa} - 1)}{(j^{sa} - j_{ik} - 1)! \cdot (}$$

$$\frac{(n_{sa}}{(n_{sa} + j_{sa}}$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\boldsymbol{l}$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + \boldsymbol{l} \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} - j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{s} = j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{\mathbb{k}_1}, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \ldots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = \mathbb{k}_1 + \mathbb{k} \wedge$

$\mathbb{k}_z: \mathbb{k}_z \geq 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.$$

$$\left. \sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )} \right)$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l}_{sa}-\boldsymbol{l}-1)!}{(\boldsymbol{l}_{sa}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l}_{sa}-s)!}{(\quad j^{sa}-\boldsymbol{l}\quad)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\left(\sum_{k=\boldsymbol{l}}\ \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\ \ )}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l}_{sa}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l}_s+j_{sa}^{ik}-\boldsymbol{l}}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l}_{sa}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

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$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-{}_{ik}-j_{sa}\right)!}$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!(\boldsymbol{n}+j_{sa}-{}_{s})!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}-j_{}^{ik}+1)}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}\sum_{j_{}^{ik}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-{}_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

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$$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$$

$$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$$

$$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$$

$$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$$

$$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$$

$$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$
{}_{fz}S_{j_s, j_{ik},} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ \ )} \right.
$$

$$
\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{\boldsymbol{a} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ \ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\left. \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot \right)
$$

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$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\Bigg(\sum_{k=\boldsymbol{l}}\sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik})}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{l}}^{n_{is}}\sum_{(n_{is}=\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{l}-\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}\sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-j_{ik}-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{sa}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(n_{sa}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{n}-\boldsymbol{l}-1)!}{(\boldsymbol{n}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l} \leq \boldsymbol{n}-1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-\boldsymbol{l_s}+1 > \boldsymbol{l_s}+\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n} \leq \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1 \wedge$

$\boldsymbol{n}=\boldsymbol{n}+\mathbb{k} \wedge I=\mathbb{k}>=0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s>3 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

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$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(\quad)}
$$

$$
\sum_{n_i=\boldsymbol{n}+}^{n} \sum_{(\quad=\boldsymbol{n}+}^{(\quad j_s+1)}
$$

$$
\sum_{n_{is}=}^{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}=}^{(n_{ik}+j_{ik}-j_{sa})}
$$

$$
\sum_{\quad=j_{ik}+1}^{\quad+1} \sum_{(\quad=\boldsymbol{n}-j^{sa}+1)}
$$

$$
\frac{(n_i - n_{is}}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot
$$

$$
\frac{s - n_{ik} - 1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot
$$

$$
\frac{(n - n_{sa}-1)!}{a - j_{ik} - 1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}
$$

$$
\Big((D \geq \boldsymbol{n} < \quad \wedge \boldsymbol{l} \neq \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge
$$

$$
2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge
$$

$$
1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge
$$

$$
j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge
$$

$$
\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge
$$

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$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{sa}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{z}S_{j_s, j_{ik}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.$$

$$\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\left. \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot \right.$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\left(\sum_{k=\boldsymbol{l}}^{j_{ik}-j_{sa}^{ik}+1}\sum_{}^{}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+}$$

$$\sum_{}^{j_{sa}}\sum_{}^{(j^{sa}=}$$

$$\sum_{}^{n}\sum_{}^{}$$

$$\sum_{n_i=}^{}\sum_{}^{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}$$

$$n_{is}+j_{}^{}\sum_{}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\sum_{}^{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

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$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)}\sum_{(j_s=2)}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-1}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}+\mathbb{k}_2-1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-j_s-1)!}{(n_i-\boldsymbol{n}-\mathbb{k}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_{sa}^{ik}-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j_{ik}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}\sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (\quad - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(\quad + \boldsymbol{l_{sa}} - \quad - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + \quad - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\quad}^{(j_{ik}-\quad)} \sum_{(j_s=2)}^{\quad} \sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+\right.}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-{}^{sa}-s)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ {}_{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$2\leq\boldsymbol{l}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+\ \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge$

$D+j_{sa}-\boldsymbol{n}<\boldsymbol{l_{sa}}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\ \wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>=0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-\ \wedge j_{sa}^{s}=j_{sa}^{ik}-\ \wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\right\}\wedge$

$s>3\ \boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z.z=2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2$

$$fzS_{j_s,j_{ik},j^{sa}}=\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)}\sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}\right.$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - 1)!}{(D + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \Bigg)$$

$$\left(\sum_{k=\boldsymbol{l}}^{(l_{ik}+2)} \sum_{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)} \right.$$

$$\sum_{j_{ik}-j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

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$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}\sum_{(j_s=2)}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_{is}+j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+1}^{n_{is}+j_s-j_{ik}}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}+1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D\geq\boldsymbol{n}<\boldsymbol{n}\wedge\boldsymbol{l}\neq{}_{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1\leq\boldsymbol{l}\leq{}_{\boldsymbol{i}}\boldsymbol{l}-1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge$

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$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} \ldots j_{sa}^{ik}+2)} \sum_{(j_s \ldots}^{\ldots} $$

$$ \sum_{\ldots = j_s + j_{sa}^{ik}} \sum_{\ldots}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} \ldots + \boldsymbol{n} - D) $$

$$ \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{\ldots} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} $$

$$ \sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s \ldots k - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} $$

$$ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot $$

$$ \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot $$

$$ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot $$

$$ \frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot $$

$$ \frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot $$

$$ \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} $$

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$$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$$

$$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$$

$$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$$

$$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$$

$$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$$

$$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)} \right.
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\left. \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot \right)
$$

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$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\Bigg(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\boldsymbol{l_{sa}}-1)}\sum_{(j^{sa}$$

$$\sum_{\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1}\sum_{\boldsymbol{n}+\mathbb{k}-j_s+1)}$$

$$\sum_{n_{is}+j_s}^{n_{ik}-\mathbb{k}_1}\sum_{(n_{ik}}^{a}-\mathbb{k}_2)$$

$$\sum_{n_{ik}}^{+\mathbb{k}_2-j_{ik}+1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-1)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(n_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\sum_{(j_s=2)}\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-j_{ik}-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{sa}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(j_{sa}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{n}-\boldsymbol{l}-1)!}{(\boldsymbol{n}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j_{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq D+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s}-j_{sa}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n} < \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1 \wedge$

$\boldsymbol{n} \geq \boldsymbol{n}-1 \wedge I=\mathbb{k}>=0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s>3 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

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$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)} \right.
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ \ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+}^{n} \sum_{(\ \ -\boldsymbol{n}+\ \ -j_s+1)}^{(\ \ -j_s+1)}
$$

$$
\sum_{n_{is}+j_s-j_{ik}}^{} \sum_{(n_{ik}+j_{ik}-j\ \ )}^{}
$$

$$
\sum_{\ \ +1}^{} \sum_{(\ \ =\boldsymbol{n}-j^{sa}+1)}^{}
$$

$$
\frac{(n_i - n_{is}}{(j_s - 2)!\,(n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{\ \ s} - n_{ik} \ \ 1)!}{(j_{ik} - j_s - 1)!\,(n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n\ \ - n_{sa} - 1)!}{\ \ a} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)} \right.
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ \ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_{ik}}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-)}\ \sum_{(j_s=2)}^{\boldsymbol{l_{sa}}+j_{sa}-l-j_{sa}+1}\ \sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{(\ )}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

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$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} -$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}}$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} +$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_s}$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j$ $j_{sa}^{ik} - 1 \leq j_{ik} < j^{sa} +$ $- j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa}$ $s \wedge$

$\boldsymbol{l_{sa}} - j_{sa} + 1 > \boldsymbol{l_s}$

D $j_{sa} - \boldsymbol{n}$ $\boldsymbol{l_{sa}} \leq D$ $\boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\Big) \wedge$

$D > \boldsymbol{n} < n \wedge I = 1$ $= 0 \wedge$

$j_{sa} \leq j_{sa}$ $1 \wedge j_{sa}^{ik} = j_s$ $- 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{l}, \ldots, j_{sa}^{i}\right\} \wedge$

s $3 \wedge$ $s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2$ $\mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \sum_{(j_s = \boldsymbol{l_{sa}} + \boldsymbol{n} - D - j_{sa} + 1)} \right.$$

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$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )} \left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is}}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s + 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)}{(j^{sa} - j_{ik} - 1)! \cdot (n_{sa} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j_{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\left(\sum_{k=\boldsymbol{l}}^{\boldsymbol{l_s}-\boldsymbol{l}+1} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\right.$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}.$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{s}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s+1)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-)!\cdot(j^{sa}+j_{sa}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{l_{sa}})!\cdot(j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\ \sum_{=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

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$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=\boldsymbol{l}}\sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}\sum_{(j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_i=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}-1}^{n_{is}-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{is}+j_{sa}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-1)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j_{ik}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq{}_{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$2\leq\boldsymbol{l}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

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$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^{[illegible]} = \left(\sum_{[illegible]} \sum_{(j_{s[illegible]} - j_{sa}^{ik} + 1)}^{(\ )} \right.$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} [illegible]} \sum_{(j^{sa} = \boldsymbol{l_{ik}} + \boldsymbol{n} + j_{sa} - D - j_{sa}^{ik})}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +$$

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$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})}\sum_{(j_s=2)}\right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}\sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}$$

$$\frac{(n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}+1)!}\cdot$$

$$\frac{(n_{is}-j_s-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}+n_{sa}-1)!}{(j^{sa}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{sa}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l} \leq {}_{i}\boldsymbol{l}-1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{sa} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_s}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n} < \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I \neq \boldsymbol{n}+\boldsymbol{l} = 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s + 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{l} \geq 2 \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D - \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

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$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{\boldsymbol{k=l}}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)} \right.
$$

$$
\sum_{j_{ik} = \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}}^{\boldsymbol{l_{ik}} + \boldsymbol{n} - D} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i = \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}
$$

$$
n_{is} + j_s - j_{ik} - \mathbb{k}_1 \quad (n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)
$$

$$
\sum_{n_{ik} = \boldsymbol{n} - \mathbb{k}_2 - j_{ik} + 1 \quad (n_{sa} = \boldsymbol{n} - j^{sa} + 1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{\boldsymbol{k=l}}^{(j_{ik} - j_{sa}^{ik})} \sum_{(j_s = 2)} \right. \sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}
$$

GÜLDÜNYA

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(j_s-\boldsymbol{l}-1)!}{(j_s-\boldsymbol{l}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+1)!}{(\boldsymbol{l_{ik}}+\boldsymbol{l_{ik}}-\boldsymbol{l}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{}\ \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\ \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ \ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

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$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s -$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!}$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}}$$

$$\left.\frac{}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j_{sa} - s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq {}_{\boldsymbol{i}}\boldsymbol{l} -$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} +$ $- j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} -$ $\boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D +$ $+ j_{sa}^{ik} - \boldsymbol{n} -$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{i}$ $j_{sa} - 1 \wedge j_{sa}^{s} -$ $^{ik} - \wedge$

$\boldsymbol{s}\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{i}$ $, j_{sa}, \cdots$ $\} \wedge$

$s > 0 \wedge \boldsymbol{s} = s + \mathbb{k}$

$\mathbb{k}_z : z =$ $\wedge \mathbb{k} = \mathbb{k}_1 +$ $\Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \sum_{(j_s = 2)}$$

$$\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

GULDUNYA

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{n}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\boldsymbol{n}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \geq D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$1 \leq j_{ik} \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik}+j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_s}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{n}+j_{sa}^{ik}-1 < \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \boldsymbol{l_s} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\boldsymbol{n}: \{j_{sa}^{s}, \mathbb{k}_{sa}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)} \right.
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{} \left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)^{(\ \ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \left(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1\right)^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \left(n_{sa}=\boldsymbol{n}-j^{sa}+j_{ik}-j_{sa}-\mathbb{k}_2\right)^{n_{ik}+j_{ik}-n_{sa}-\mathbb{k}_2}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)} \right.
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)^{(\ \ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \left(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1\right)^{(n_i-j_s+1)}
$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_{ik}}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l}+\boldsymbol{n}-D-j_{sa})}\ \sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\ )}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

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$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - \quad)}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{sa}} > D + \boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{n} - j_{sa}^{ik} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \sum_{(j_s = 2)}$$

$$\sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(n_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_s}-s)!}{(D+j^{sa}-\boldsymbol{l_s}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j^{ik}-j_{sa}=\wedge$

$\boldsymbol{l_{ik}} > D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}-1 \wedge j_{sa}^{ik}=-1 \wedge j_{sa}^{s}=j_{sa}+1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}\} \wedge$

$s > \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_{ik}}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \geq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa} \geq 1 \leq j_{ik} \leq j_{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+\boldsymbol{l_{sa}}-j_{sa}^{ik} \leq j^{sa} < \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{sa}}-j_{sa}+1 \geq \boldsymbol{l} \wedge$

$\boldsymbol{l_{sa}} \geq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$\boldsymbol{n} > 3 \wedge \boldsymbol{s} > s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}$$

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$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is} + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{sa} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s - \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \boldsymbol{l_i} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$$

$$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \boldsymbol{l_i} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

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$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}
$$

$$
\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} \sum_{(j^{sa} = j_{sa} + 1)}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}$ $-j_{sa}$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s>$ $\wedge$

$\boldsymbol{l_i} \leq D+s-\boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq$ $-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-$ $\leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq$ $+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}$ $\boldsymbol{l_{sa}}+j_{sa}$ $=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}} \wedge$

$D+s$ $<\boldsymbol{l_i} \leq D+$ $+s-\boldsymbol{n}-1)\Big) \wedge$

$D \geq \boldsymbol{n} < n$ $= \mathbb{k} >$ $0 \wedge$

j_{sa} j_{sa} $1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1$ $, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s>s \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}$$

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$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)} \sum_{(j^{sa}=j_{sa}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum^{(n_i-j_s+1)} (n_{is}=\boldsymbol{n}+\mathbb{k}-j_s$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=$$

$$\frac{(n_i$$

$$\frac{(n_{is}-n_{i}$$

$$\frac{(n_{i}$$

$$\frac{(n_{sa}$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D$$

$D \geq \boldsymbol{n} < n \wedge$ $\neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge$ $\leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}$ $1 \wedge j_s +$ $^{ik} \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq$ $+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1$ $\boldsymbol{l_s} \wedge \boldsymbol{l}$ $-j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i}$ D $-\boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n$ $l=\mathbb{k} >= 0 \wedge$

$j_{sa}=j_{sa}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}
$$

$$
\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (\quad j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} \quad n_{ik} - 1)!}{(j_{ik} - j_s \quad 1)! \cdot (n_{is} \quad j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} \quad n_{sa} - 1)!}{(j^{sa} \quad j_{ik} - 1)! \quad n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})} \sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+2)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - \boldsymbol{l} + 1)! \cdot (\boldsymbol{l} - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - j_{sa}^{ik})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j^{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} +$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s +$ $j_{ik} \leq j^{sa} + j_{sa}^{ik} - j$ $\wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}$ $- s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik}$ $> \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{sa}} \leq$ $+ j_{sa} - \boldsymbol{n}$ $\leq D + s - \boldsymbol{n}$

$(D \geq \boldsymbol{n} < n \wedge$ ${}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n}$ $1 \wedge$

$1 \leq$ $\leq j_{ik} - j_{sa}^{ik} +$ $\wedge j_s + j_{sa}$ $- 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa}$ $_{sa}^{ik} \leq j^{sa} \leq$ $+ j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} -$ $_{sa}^{ik} + 1 =$ $\boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D +$ $\boldsymbol{n})\Big) \wedge$

$> \boldsymbol{n}$ $\wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{j_{ik} = j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa} = j_{sa}+1)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}
$$

$$
\sum_{n_i = \boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{is}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-j_{sa})}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{(\ )} \sum_{j_{ik} = j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa} = \boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i = \boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(j_{sa}^{ik} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - 1)! \cdot (j^{sa} - j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa}^{ik} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa}^{ik} - \boldsymbol{n} - \boldsymbol{l_{ik}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \geq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq n_{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + \boldsymbol{l_{ik}} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > 0 \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} \geq \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} \geq D + j_{sa}^{ik} - \boldsymbol{n} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa}^{ik} - \boldsymbol{n} \wedge$

$\boldsymbol{n} \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

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$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=j_{sa}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)} \sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} - j_{sa} + 1)! \cdot (j_{ik} - j_s - j_{sa} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_s} - s)!}{(D + j^{sa} - \boldsymbol{l_s} - s)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

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$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_i}}^{(\ )}
$$

$$
\sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l} - j_{sa} + 1} \sum_{(j^{sa} = j_{ik} - \boldsymbol{l_k} - \boldsymbol{l_i})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{\boldsymbol{n}} \sum_{(n_i = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s}
$$

$$
\sum_{n_{is} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik}}^{n_{is} + j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{sa} + j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

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$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \le D + s - \boldsymbol{n}) \vee$

$(D \ge \boldsymbol{n} < n \wedge \boldsymbol{l} \ne {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \le D - \boldsymbol{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \le D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)) \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \wedge$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{j_{ik} = j_{sa}^{ik} + 1}^{(\ )} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{n} \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

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$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}$ [illegible] $-s$ [illegible] $\boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D+s-\boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge$ [illegible] $-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j$ [illegible] $\wedge$

$s>3 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z$ [illegible] $2 \wedge \mathbb{k}=\mathbb{k}_1$ [illegible] $\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - 1)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - 1)! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j^{sa} - \boldsymbol{l_{sa}} - 1)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} +$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s +$ $j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}$ $- s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik}$ $> \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{sa}} \leq$ $+ j_{sa} - \boldsymbol{n}$ $\leq D + s - \boldsymbol{n}$

$(D \geq \boldsymbol{n} < n \wedge$ ${}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} <$ $D - \boldsymbol{n}$ $1 \wedge$

$1 \leq$ $\leq j_{ik} - j_{sa}^{ik} +$ $\wedge j_s + j_{sa}$ $- 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa}$ $^{ik}_{sa} \leq j^{sa} \leq$ $+ j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} -$ ^{ik} $+ 1 =$ $\boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D +$ $\boldsymbol{n})\Big) \wedge$

$>$ $\boldsymbol{n}$ $\wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}
$$

$$
\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+}^{n} \sum_{-\boldsymbol{n}+}^{(\ j_s+1)}
$$

$$
\sum_{n_{is}+j_s-j_{ik}}^{} \sum_{}^{(n_{ik}+j_{ik}-j_{sa})}
$$

$$
\sum_{+1}^{} \sum_{=\boldsymbol{n}-j^{sa}+1)}^{}
$$

$$
\frac{(n_i - n_{is}}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{s - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n - n_{sa} - 1)!}{a - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \quad \boldsymbol{l} \neq \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} \leq D + j_{sa}^{ik} - \boldsymbol{n} \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

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$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(\ldots=2)}^{(\ldots_{ik} - j_{sa}^{ik} + 1)}
$$

$$
\sum_{\ldots = j_{sa}^{ik}+1}^{\boldsymbol{l_s} + \ldots_{ik} - \boldsymbol{l}} \sum_{(\ldots = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ldots)}
$$

$$
\sum_{n_i = \ldots \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(\ldots + 1)}
$$

$$
\sum_{n_{ik} = \ldots_2 - j_{ik} + 1}^{n_{is} + \ldots j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

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$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{}^{j^{sa}+1)}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_{is}-n_{ik}}{(j_{ik}-j_s}$$

$$\frac{(n_{ik}}{(j^{sa}-j_{ik}}$$

$$\frac{(n_{sa}}{(n_{sa}+j_{ik}}$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\Big((D \geq$$

$$< n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$$

$$1 \leq j_s \leq j_{ik}$$

$$+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$$

$$j_{ik}$$

$$j_{sa}$$

$$j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+$$

$$= \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}) \vee$$

$$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$$

$$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}} \wedge$$

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$\boldsymbol{l_i} \le D + s - \boldsymbol{n}) \vee$

$(D \ge \boldsymbol{n} < n \wedge \boldsymbol{l} \ne {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \le D - \boldsymbol{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \le D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)\big) \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s,\ldots,j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}-j_{sa}+2)} \sum_{(j_s=2)}
$$

$$
\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

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$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D+s-\boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq$ [illegible] $\wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s$ [illegible] $j_{sa}^{ik}-1 \leq j_{ik}$ [illegible] $j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}$ [illegible] $\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge$ [illegible] $+j_{sa}^{ik}-j_{sa}=$ [illegible] $+j_{sa}-s>\boldsymbol{l_{sa}} \wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i}<D+\boldsymbol{l_s}$ [illegible] $s-\boldsymbol{n}-1)\Big) \wedge$

$D \geq$ [illegible] $< n \wedge I=\mathbb{k}$ [illegible] $0 \wedge$

$j_{sa} \leq j_{sa}^{i}$ [illegible] $1 \wedge j_{sa}^{ik}=j_s$ [illegible] $-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}$: $\{j_s^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2$ [illegible] $, j_{sa}^{i}\} \wedge$

$s>3 \wedge \boldsymbol{s}$ [illegible] $s+\mathbb{k} \wedge$

[illegible] $z=2$ [illegible] $\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)}\sum_{(j_s=2)}$$

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$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i - 1)}{(j_s - 2)! \cdot (n_i - n_{is} + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D - j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \boldsymbol{_i l} \wedge \boldsymbol{l} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s - j_{sa}^{ik} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_s - j_{sa}^{ik} \leq j^{sa} \leq j_{ik} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \boldsymbol{l_s} \leq \boldsymbol{l_s} \wedge \boldsymbol{l_s} - j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \geq \boldsymbol{l_{sa}} - \boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} - j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)}
$$

$$
\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j^{ik}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+}^{(n_{is}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot
$$

$$
\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-j_s-n_{ik}-j_{ik})!}\cdot
$$

$$
\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}
$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{sa}} \leq D+j_{sa}-\boldsymbol{n} \wedge \boldsymbol{l_i} \leq D+s-\boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

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$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n})\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$j_{sa}, j_{ik}, j^{sa} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}-\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

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$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ {}_{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge$

$\boldsymbol{l_{ik}}\leq D+j_{sa}^{ik}-\boldsymbol{n}\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>=0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}\colon\left\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\right\}\wedge$

$s>3\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z\colon z=2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}^{}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1}\ \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

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$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s -$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (j_{ik} - j_s -$$

$$\frac{(D + j_{sa} -}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{i}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} >$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa}$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\}$

$s > 3 \wedge \boldsymbol{s} = s +$

$\mathbb{k}$ $z = 2 \wedge$ $= \mathbb{k}_1 +$ $\Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \right.$$

$$\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}}^{(\boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 1)} \sum_{(j^{sa} = j_{sa} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!}$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} \quad)!}{(D + j^{sa} - \boldsymbol{n} \quad (\boldsymbol{n} + j_{sa} \quad - j^{sa} - s)!)}$$

$$\left(\sum_{\boldsymbol{l}} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \right.$$

$$j^{sa} + j_s \quad j_{sa} - 1 \; (\boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 1)$$

$$\sum_{j_{sa}^{ik} + 1} \qquad \sum_{(j^{sa} = j_{sa} + 2)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \; \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \; \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

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$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{(\ )} \sum_{j_{ik} = j_{sa}^{ik}+1}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = \boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 2)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} + j_s + 1)}^{(n_{ik} + j_s + 1)}$$

$$\sum_{n_{is} + \boldsymbol{n} + \mathbb{k} - j_s + 1}^{n_{is} + j_s - j_{ik}} \sum_{(n_{is} + \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} + 1)}$$

$$\frac{(n_i - n_{is} - j_s)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\left.\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

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$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s \quad + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{} \sum_{(\boldsymbol{l_s} \quad - \boldsymbol{l})}^{} \sum_{j_{ik} = \quad + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}}^{} \sum_{(j^{sa} - \quad + 1)}^{} \sum_{n_i = \boldsymbol{n} + \quad}^{n} \sum_{(n_i - j_s + 1)}^{} \sum_{(n_{is} + j_s - j_{ik} \quad}^{} \sum_{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{} \sum_{n_{ik} = \boldsymbol{n} \quad - j_{ik} + 1}^{} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{}
$$

$$
\frac{(n_i - n_{is} - 1)!}{2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{ik - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \ge \boldsymbol{n} < n \wedge \boldsymbol{l} \ne \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \le D + j_{sa} - \boldsymbol{n} \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

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$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{(j^{sa} = j_{sa} + \boldsymbol{l})}
$$

$$
\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa} - 1}^{j^{sa} + j_{sa}^{ik} - j_{sa} - 1} \sum_{(j^{sa} = j_{sa} + 1)}
$$

$$
\sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{n + \mathbb{k}}
$$

$$
\sum_{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}^{n_{is} + j_{ik} - \mathbb{k}_1}
$$

$$
\sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{n_{ik} = \boldsymbol{n} - j_{ik} + 1}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{j_{ik} = j_{sa}^{ik} + 1}^{j^{sa} + j_{sa}^{ik} - j_{sa} - 1}
$$

$$
\sum_{(j^{sa} = j_{sa} + 2)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}
$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-\boldsymbol{l}-j^{sa})!}\cdot$$

$$\frac{(j_s-\boldsymbol{l}-1)!}{(j_s-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}-\boldsymbol{l_{sa}}-j_{sa}+\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\ )}\ \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\ \sum_{j_{ik}=j_{sa}^{ik}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\ \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

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$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s -$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} -$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}}$$

$$(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})$$

$$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} =$$

$$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$$

$$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa}$$

$$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\}$$

$$s > 3 \wedge \boldsymbol{s} = s +$$

$$\mathbb{k}_z = 2 \wedge$$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.$$

$$\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}} \sum_{(j^{sa} = j_{sa} + 1)}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - s)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg)$$

$$\Bigg(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=\boldsymbol{l}_{sa}, j_{ik}=j^{sa}+\boldsymbol{l}_{sa}-\boldsymbol{l_{sa}})} \sum_{(j^{sa}=j_{sa}+2)}^{(j_{sa}-\boldsymbol{l})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

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$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_1-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}+\mathbb{k}_2-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\left.\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_{sa}} - \boldsymbol{l_s} - \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{sa} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

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$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{j_{ik} = j_{sa}^{ik}+1}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{(n_i - \ \ + 1)} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s)}^{(\ )}
$$

$$
j_s - j_{ik} - \mathbb{k}_1 \qquad + j_{ik} - j^{sa} - \mathbb{k}_2)
$$

$$
\sum_{n_{ik} = \boldsymbol{n}}^{\ } \sum_{- j_{ik} + 1}^{\ } \quad (n_{sa}^{\ } + 1)
$$

$$
\frac{(n_{\ } - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{\ } - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{\ } - n_{ik} - 1)!}{(j_{ik} - j_{\ } - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{s} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \sum_{j_{ik} = j_{sa}^{ik}+1}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik} + 1)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} \right.
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(\boldsymbol{l_s}-j_s+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{ik}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{n})!\cdot(j^{sa}-j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_s-\boldsymbol{l_{sa}}-s)!}{(D+j_s-\boldsymbol{n}-\boldsymbol{l_s}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \geq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+\boldsymbol{l_{sa}}-j_{sa}^{ik} \leq j^{sa}+\boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 \leq \boldsymbol{l_{sa}} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} \leq \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k}_1 = 0 \wedge$

$j_{sa}^{i} \leq j_{sa}^{ik}-1 \wedge j_{sa}^{ik} = j_{sa}^{s}-1 \wedge j_{sa}^{s} = j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_s^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j^{sa}, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = \mathbb{k} + \mathbb{k} \wedge$

$z \cdot z = 2 \cdot \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}$$

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$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum^{(n_i-j_s+1)}_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_{is}-n_{ik}}{(j_{ik}-j_s}$$

$$\frac{(n_{ik}}{(j^{sa}-j_{ik}}$$

$$\frac{(n_{sa}}{(n_{sa}+j_{sa}}$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D$$

$$D \geq \boldsymbol{n} < n \wedge \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \leq D+j_{sa}-\boldsymbol{l} \wedge$$

$$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}-1 \wedge j_s+ \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq +j_{sa}-s \wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 \boldsymbol{l_s} \wedge \boldsymbol{l}-j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge$$

$$D \boldsymbol{n} \wedge I = \mathbb{k} >= 0 \wedge$$

$$j_{sa} \leq j_{sa}^{i} \wedge j_{sa}^{ik} = j_{sa}-1 \wedge j_{sa}^{s} = j_{sa}^{ik}-1 \wedge$$

$$\boldsymbol{s}: \{j_{sa}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$$

$$s > 3 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1+\mathbb{k}_2 \Rightarrow$$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s + 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(n_{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j^{ik} - j_{sa} = \boldsymbol{l} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j^{ik} = j_{sa} - 1 \wedge j_{sa} - j_{sa}^{ik} - 1$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j \ldots \mathbb{k}_2, j_{sa}, \ldots j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \ldots \wedge$

$\mathbb{k}_z: z \ldots 2 \wedge \mathbb{k} = \mathbb{k}_1 + \ldots \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(\ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{n} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}\right.$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{n} - s)!}{(D + j^{sa} - \boldsymbol{n} - s)! \cdot (\boldsymbol{n} - j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})} \sum_{j_{ik}=j_{sa}^{ik}+1}^{j_{sa}^{ik}+\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

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$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}\sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1}\sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-1)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j_{ik}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq{}_{i}\boldsymbol{l}\wedge\boldsymbol{l_{sa}}\leq D+j_{sa}-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>=0\wedge$

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$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i} \right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} - \boldsymbol{l} - j_{sa}^{ik})} \sum_{(j_s=2)} \right.
$$

$$
\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_s)}
$$

$$
\sum_{} \sum_{(n_i - j_s + 1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{is}=n_i-j_s+1)}
$$

$$
+ j_s - j_{ik} - \sum_{} (n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+} \sum_{-j_{ik}+1 \quad (n_{sa}=\boldsymbol{n}-j^{sa}+1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} - \boldsymbol{l} - j_{sa}^{ik} + 2)} \sum_{(j_s=2)} \right.
$$

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$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1}^{}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{sa}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(\boldsymbol{l}+\boldsymbol{l}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{l} \wedge n \wedge \boldsymbol{l} \neq \boldsymbol{l} \wedge \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik} \leq j_{sa}^{ik}+1 \leq j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik} \leq j_s \leq j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+\boldsymbol{l} = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$n \wedge I=\mathbb{k}>=0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s>3 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

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$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} $$

$$ \sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )} $$

$$ \sum_{n_i=\boldsymbol{n}}^{n} \sum_{(n_{is}=\boldsymbol{n}+j_s+1)}^{(\boldsymbol{n}-j_s+1)} $$

$$ \sum_{n_{is}=j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{ik}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} $$

$$ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot $$

$$ \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot $$

$$ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot $$

$$ \frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot $$

$$ \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} $$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

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$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \right.
$$

$$
\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1}^{n_i-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}+\mathbb{k}-j^{sa}+1)}^{(n_{sa}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_{is}-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}-n_{is}-j_s+1)!} \cdot
$$

$$
\frac{(n_{ik}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot
$$

$$
\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)! \cdot (\boldsymbol{n}-j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)! \cdot (j_s-2)!} \cdot
$$

$$
\left. \frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})! \cdot (\boldsymbol{n}+j_{sa}-j^{sa}-s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(j_{sa}^{ik}+j_{sa}^{ik}-j_{ik}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-j_{sa})!\cdot(j^{sa}-j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_s-\boldsymbol{l_{sa}}-s)!}{(D+j_s-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \quad D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} \quad 1 \leq j_{ik} \leq \quad a + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + \quad - j_{sa}^{ik} \leq j^{\quad} < \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \quad \wedge \boldsymbol{l_{sa}} + \quad ik - j_{sa} \quad \boldsymbol{l_{ik}} \wedge$

$D \geq \quad < n \wedge I = \mathbb{k} \quad = 0 \wedge$

$j_{sa} \leq j_{sa}^{i} \quad 1 \wedge j_{sa}^{ik} = j_s \quad - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_s^{s} \quad \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2 \quad , j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} \quad = + \mathbb{k} \wedge$

$\quad \cdot z = 2 \quad \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\ \sum_{(j_s=2)}\right.$$

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$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ )} \left(\sum_{j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}}} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{sa} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +$$

$$\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=j_s+j_{sa}^{ik}}^{(\ )} \left(\sum_{j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}}} \right. \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

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$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s -$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!}$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} -$$

$$\frac{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})!}{(\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Big)$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} -$ $\wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s =$ $\wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s -$ $) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq$ $+ j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} +$ $- j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 =$ $\wedge \boldsymbol{l_{sa}} +$ $- j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D +$ $- \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} +$ $- \boldsymbol{n} - 1)\big) \wedge$

$\geq \boldsymbol{n} <$ $\wedge I = \mathbb{k} >=$ $\wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge$ $_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1,$ $\mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$> 3 \wedge$ $s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

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$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s + 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(\boldsymbol{l} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+2)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l}$$

$$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n}$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} +$$

$$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D +$$

$$D + s - \boldsymbol{n} < \boldsymbol{l_i}$$

$$(D \geq \boldsymbol{n} <$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s +$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} +$$

$$D +$$

$$(D \geq \boldsymbol{n} <$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$$

$$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\Big) \wedge$$

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$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{\boldsymbol{l}=\boldsymbol{l}}^{(\quad)} \sum_{(j_s = j_{\quad} \quad \boldsymbol{l_s} - \boldsymbol{l_{ik}})}
$$

$$
j^{sa} \quad {}_{sa}^{ik} - j_{sa} \quad (\boldsymbol{l_s} \quad)
$$

$$
\sum_{j_{ik} = j_{sa}^{ik}+1} \quad \sum_{{}^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}
$$

$$
(\quad j_s + 1)
$$

$$
\sum_{n_{\quad}}^{n} \quad \sum_{+\mathbb{k}\ (n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}
$$

$$
n_{is} + \quad j_{ik} - \mathbb{k}_1 \quad (n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)
$$

$$
\sum_{n_{ik} = \boldsymbol{n}} \quad {}_{} - j_{ik} + 1 \quad (n_{sa} = \boldsymbol{n} - j^{sa} + 1)
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

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$$\sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}} \sum_{j^{sa}+1)}$$

$$\frac{(n_i}{(j_s-2)}$$

$$\frac{(n_{is}-n_{ik}}{(j_{ik}-j_s}$$

$$\frac{(n_{ik}}{(j^{sa}-j_{ik}}$$

$$\frac{(n_{sa}}{(n_{sa}+j_{sa}}$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(\boldsymbol{l}$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\Big((D \geq$ $< n \wedge \boldsymbol{l} \neq$ $_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}$ $j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

j_{ik} j_{sa} $j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+$ $> \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D+j_{sa}-\boldsymbol{n} < \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1 \wedge$

$D+s-\boldsymbol{n} < \boldsymbol{l_i} \leq D+\boldsymbol{l_{sa}}+s-\boldsymbol{n}-j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq$ $_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

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$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$\sum_{j_{ik}=2}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

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$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)} \sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}} \sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}-\mathbb{k}_2+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - j_s - 1)!}{(n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik})!}{(j_{ik} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \boldsymbol{{}_i l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$\boldsymbol{{}_{ik}} + j_s - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \boldsymbol{{}_i l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

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$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$j_{2} \ldots j_{ik} \ldots = \sum \ldots \sum_{(j_s \ldots + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{j_{ik} \ldots {}_{sa}^{ik}+1}^{\ldots + \boldsymbol{n} + j_{sa}^{ik} \ldots j_{sa}-1} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

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$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = j}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)} {}_{sa} - j_{sa}^{ik})$$

$$\sum_{=\boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = n}^{(n_i} {}_{} + 1)$$

$$\sum_{n_{ik} -}^{n_{is} + j_s - j_{ik} - \mathbb{k}} \sum_{j^{sa} + 1)}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}}$$

$$\frac{(n_{is} - n_{is} - 1)!}{(\quad - 2)! \cdot (\quad - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{ik} - 1)!}{(\quad - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$(D > \quad n \wedge \boldsymbol{l} \neq \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

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$$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{n} - j_{sa}^{ik} \wedge$$

$$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$$

$$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$$

$$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$$

$$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$$

$$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)) \wedge$$

$$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$$

$$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$$

$$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\}$$

$$s > 3 \wedge \boldsymbol{s} = s +$$

$$\mathbb{k} z = 2 \wedge = \mathbb{k}_1 + \Rightarrow$$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa} - 1} \quad \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \quad \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - \boldsymbol{l} + 1)! \cdot (\boldsymbol{l} - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - j_{sa}^{ik})! \cdot (j^{sa} + j_{sa} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - j_{sa} - \boldsymbol{l_{sa}})! \cdot (D + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{j_s - j_{sa} - \boldsymbol{l}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

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$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n} < \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-\cdots \wedge$

$D+s-\boldsymbol{n} < \boldsymbol{l_i} \leq D+\boldsymbol{l_{sa}}+s-\boldsymbol{n}-j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+\cdots$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l}\cdots+j_{sa}-s=\boldsymbol{l_{sa}} \wedge$

$D+j_{sa}-\boldsymbol{n} < \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\cdots-1) \wedge$

$D \leq \boldsymbol{n} < n \wedge \cdots = \mathbb{k} >= \cdots \wedge$

$j_{sa} < j_{sa}^{i}-1 \wedge j_{sa}^{ik} \cdots j_{sa}-1 \cdots = j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}\cdots j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = \cdots \mathbb{k} \wedge$

$\mathbb{k}_2 \cdots = 2 \cdots \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot \frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot \frac{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!}{(j_{sa}-1)!\cdot(n_{sa}+j_{sa}-\boldsymbol{n}-j^{sa})!}\cdot \frac{(\boldsymbol{n}+j_{sa}-\boldsymbol{l}-1)!}{(\boldsymbol{n}+j_{sa}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot \frac{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+1)!}{(\boldsymbol{l_{sa}}+\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot \frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}^{} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

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$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}-(\boldsymbol{n}+j_{sa}-j_{sa}-s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}} \wedge$

$D+s-\boldsymbol{n} < \boldsymbol{l_i} \leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}} \wedge$

$D+s-\boldsymbol{n} < \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1)\Big) \wedge$

$\boldsymbol{n} \geq \boldsymbol{n} < n \wedge I=\mathbb{k} >= 3 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$\mathbb{k} > 3 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\sum_{(j_s=2)}$$

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$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{sa} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(\boldsymbol{l_{ik}} + \boldsymbol{l} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}$$

$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \quad \boldsymbol{n} - j^{sa})!}$$

$$\frac{(\quad \boldsymbol{l} - 1)}{(\boldsymbol{l_s} - \quad - \boldsymbol{l} + 1) \quad - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} \quad)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} \quad (j^{sa} + j_s \quad - j_{ik} - j_{sa})!}$$

$$\frac{(D + \quad - \boldsymbol{l_{sa}} \quad}{(D + j^{sa} \quad \boldsymbol{n} - \boldsymbol{l_{sa}}) \quad (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + \quad \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + \quad - j_{ik} \leq j \quad + j_{sa}^{ik} - j \quad \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} \quad _{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - \quad > \boldsymbol{l_{ik}} \wedge$

$D + \quad - \boldsymbol{n} < \boldsymbol{l_{sa}} \quad D + \boldsymbol{l_{ik}} + j_{sa} - \quad _{sa} \wedge$

$D \quad + s - \boldsymbol{n} < \boldsymbol{l_{\quad}} \quad D + \boldsymbol{l_{sa}} \quad s - \boldsymbol{n} \quad _{sa}) \vee$

$(D \quad \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D \quad \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j \quad - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + \quad - j_{sa}^{ik} \quad \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \quad = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$\quad + j_{sa} \quad < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

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$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} \sum_{[illegible]} \sum_{(j_s=2)}^{(\boldsymbol{l_{sa}} [illegible] - j_{sa})} $$

$$ \sum_{j_{ik}=j_s [illegible] - \boldsymbol{l_s}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{[illegible] - \boldsymbol{l}+1)} $$

$$ \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} $$

$$ \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{[illegible] + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} $$

$$ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot $$

$$ \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot $$

$$ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot $$

$$ \frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot $$

$$ \frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot $$

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$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}\sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}$$

$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}\sum_{(j^{sa}=j_{sa}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{\boldsymbol{n}=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}+1)}^{(n_{is}+1)}$$

$$\sum_{n_{ik}=\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(j^{sa}=j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(\boldsymbol{n}-n_{is}-1)!}{(j_s-2)!\cdot(\boldsymbol{n}-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j_{ik}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$((D>\boldsymbol{n}\wedge n\wedge \boldsymbol{l}\neq {}_{\boldsymbol{i}}\boldsymbol{l}\wedge \boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge$

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$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s \ldots j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{(j_s=2)}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\sum_{k=\quad}^{(l_s-\boldsymbol{l}+} \sum_{=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}}$$

$$\sum_{j_{ik}=j_s}^{j_{sa}+1} \sum^{(\quad)}_{k-1 \quad (j^{sa}=j_{ik}-\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

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$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \left(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik}\right)$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

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$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}^{}\quad\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}\quad\sum_{(j_{sa}=\boldsymbol{l_s}+}^{}$$

$$\sum_{n_i=\boldsymbol{n}+}^{n}\quad\sum_{=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{}$$

$$n_{i}-j_{ik}\qquad\qquad j^{sa}-\mathbb{k}_2)$$

$$\sum_{=\boldsymbol{n}+\mathbb{k}_2-}^{}\quad 1\quad\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-\quad)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{s-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(\quad-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ {}_{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

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$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{\boldsymbol{l}=\boldsymbol{l}} \sum_{(j_s=2)}^{(j_{ik}+1)} $$

$$ \sum_{j_{ik}=\boldsymbol{l_{ik}}+1}^{\boldsymbol{l_s}+j_{sa}^{ik}-1} \sum_{D\,(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(j_{sa}-j_{ik}+1)} $$

$$ \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} $$

$$ \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} $$

$$ \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot $$

$$ \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot $$

$$ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot $$

$$ \frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot $$

$$ \frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot $$

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$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}^{}\sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ \ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}}^{(n_i-j_s+1}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-j_s-1)!}{(n_i-j_s+1)!}\cdot$$

$$\frac{(n_{ik}-1)!}{(j_{ik}-1)!\cdot(n_{ik}+j_s-j_{ik})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n} < \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

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$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik})}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j_{sa}=j_{ik}+\boldsymbol{n}-\boldsymbol{l_{ik}})}^{(\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +
$$

$$
\sum_{k=\boldsymbol{l}} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}
$$

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$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\quad j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i \quad -1)}{(j_s-2)!\cdot(n_i-n_{is} \quad +1)!}\cdot$$

$$\frac{(n_{is}-n_{i} \quad -1)!}{(j_{ik}-j_s)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{i} \quad -n_{sa}-1)!}{(j^{sa}-j_{i} \quad -1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa} \quad -1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_{ \quad }-\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \quad < n \wedge \boldsymbol{l} \neq \quad \boldsymbol{l} \quad \leq D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D \quad \boldsymbol{l_s}+j_{sa} \quad -\boldsymbol{l_{sa}} \wedge$

$1 \leq \quad j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa} \quad \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\quad 1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}} \wedge$

$D+j_{sa}-\boldsymbol{n}<\boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k}>=0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

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$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{(\ )} \right.
$$

$$
(\boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 1)
$$

$$
\sum_{j_{ik} = j^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}
$$

$$
(n_i - j_s +
$$

$$
\sum_{= \boldsymbol{n} + \mathbb{k}} \sum_{= \boldsymbol{n} + \mathbb{k} - j_s + 1)}
$$

$$
n_{is} + \quad j_{ik} - \mathbb{k}_1 \quad (\quad {}^{sa} - \mathbb{k}_2)
$$

$$
\sum_{+ \mathbb{k}_2 - j_{ik}} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - \quad)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{{}_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{{}^{a} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}^{(\ )} \right.
$$

$$
\sum_{j_{ik} = j_{sa}^{ik} + 1}^{j^{sa} + j_{sa}^{ik} - j_{sa} - 1} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{l} - j_{sa}^{ik} + 1)}
$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-\boldsymbol{l})!\cdot(j^{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}+j^{sa}-\boldsymbol{n}-\boldsymbol{l}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}-\boldsymbol{l_{sa}}-j_{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{\boldsymbol{l}}^{(\ \ )}\ \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{j_{ik}=j_{sa}^{ik}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\ \sum_{(j^{sa}=\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+2)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

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$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s -$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - \right.$$

$$\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}}$$

$$\left. \frac{}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})$$

$$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq \ {}_{\boldsymbol{i}}\boldsymbol{l} -$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} +$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} -$$

$$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D +$$

$$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$$

$$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{$$

$$\boldsymbol{s}$$

$$s >$$

$$\mathbb{k}_z : z =$$

$$\wedge \mathbb{k} = \mathbb{k}_1 +$$

$$\Rightarrow$$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ \ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\cdots-1)!\cdot(\boldsymbol{n}-\cdots)!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\cdots-1)!}{\cdots-j_s-\boldsymbol{l}+1)!\,(j_s-2)!}\cdot$$

$$\frac{(\cdots+j_{sa}^{ik}-\cdots-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\cdots)!\cdot(j^{\cdots}-j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+\cdots-\boldsymbol{l_{sa}}-s)!}{(D+\cdots-\boldsymbol{n}-\boldsymbol{l}\cdots)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \cdots D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$1 \leq j_{\cdots} \leq j_{ik}-j_{sa}^{ik}+\cdots \wedge j_s+j_{sa}^{ik}-1 \cdots j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\cdots j^{sa} \leq \boldsymbol{n}\cdots j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}\cdots_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \cdots+j_{sa}^{ik}\cdots_{sa}>\boldsymbol{l_{ik}} \wedge$

$\cdots+j_{sa}\cdots<\boldsymbol{l_{sa}} \leq D\cdots\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge \cdots 0 \wedge$

$j_{sa} \leq j_{sa}^{i}\cdots 1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\cdots\{j_{sa}^{s},\mathbb{k}\cdots_{sa},\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\} \wedge$

$s>3 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s + 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{j_{ik}=j_{sa}^{ik}+1}^{j^{sa}+j_{sa}^{ik}-j_{sa}-1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\cdot$$

$$\sum_{k=\boldsymbol{l}}^{(\quad)}\ \sum_{(j_s=j_{ik}+\boldsymbol{l_s}-}^{j_{sa}^{ik}-\boldsymbol{l}}\ \sum_{j_{ik}=j_{sa}^{ik}+}^{(\quad)}\ \sum_{isa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

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$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq {}_{\boldsymbol{i}}\boldsymbol{l} - 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$j_{z\ j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\boldsymbol{l_{sa}} - \boldsymbol{l} + 1)}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-\right.}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+$ $\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n} < \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-$ $\wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}$ $\wedge j_{sa}^{s}=j_{sa}^{ik}-$ $\wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3$ $\boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_2 \cdot z = 2 \wedge \mathbb{k}$ $\mathbb{k}_1+\mathbb{k}_2$

$$fzS_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_s}+j_{sa}-\boldsymbol{l})} \sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}\right.$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - s)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg)$$

$$\Bigg(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} - j_{sa}^{ik})} \sum_{(j_s=2)}^{(\boldsymbol{l_{ik}} - j_{sa}^{ik})} \sum_{(n_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_s})}^{(\boldsymbol{l_{ik}} - j_{sa}^{ik})} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

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$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}\sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_1-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}+\mathbb{k}_2-j_{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D\geq \boldsymbol{n}<n\wedge \boldsymbol{l_s}+\boldsymbol{l_{sa}}-\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1\leq \boldsymbol{l}\leq {}_i\boldsymbol{l}-1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge$

$D+j_{sa}^{ik}-\boldsymbol{n}<\boldsymbol{l_{ik}}\leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1\wedge$

$D\geq \boldsymbol{n}<n\wedge I=\mathbb{k}>=0\wedge$

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$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{\cdots}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}^{\cdots}
$$

$$
\sum_{j_{ik}=j^{\cdots}}^{(\boldsymbol{l_{sa}}+1)} \sum_{\cdots}^{\cdots}
$$

$$
\sum_{\cdots}^{\cdots} \sum_{j_{ik}=j^{\cdots}}^{\boldsymbol{l_{ik}}-\boldsymbol{l_s}\ (j^{sa}=\boldsymbol{l_{sa}}+\cdots D)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\cdots}^{n} \sum_{\cdots}^{(n_i-j_s+1)}
$$

$$
\sum_{\cdots}^{n_{is}+j_s-j_{\cdots}\ \mathbb{k}_1} \sum_{\cdots}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}\cdots-j_{ik}+1}^{\cdots} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{\cdots}
$$

$$
\frac{(n_i - n_{is} - 1)!}{\cdots 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{\cdots_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \ge \boldsymbol{n} < n \wedge \boldsymbol{l} \ne {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \le D - \boldsymbol{n} + 1 \wedge$

$2 \le \boldsymbol{l} \le D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

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$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \le D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i} \right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \right)_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})}
$$

$$
\sum_{=\boldsymbol{l_{sa}} + \boldsymbol{n} + j_s^{ik} - j_{sa}}^{\boldsymbol{l_{ik}} + 1} \ \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \ \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \ \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

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$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\Bigg(\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{lk}-D-j_{sa}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\ \sum_{(j^{sa}=j_{ik}+}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{\boldsymbol{n}+\mathbb{k}\ (n_{is}=\boldsymbol{n}+}^{n}\ \sum^{(n_i}$$

$$\sum_{n_{ik}=}\ \sum_{}^{}$$

$$\frac{(\quad-n_{is}-1)!}{(\quad-2)!\cdot(\quad-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{ik}-n_{ik}-1)!}{(\quad-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\ )}\sum_{(j_s=j_{ik}+\boldsymbol{l_s}-\boldsymbol{l_{ik}})}\ \sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-1}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\quad-1)!\cdot(\boldsymbol{n}-\quad)!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\quad-1)!}{-j_s-\quad+1)!\,(j_s-2)!}\cdot$$

$$\frac{(\quad+j_{sa}^{ik}-\quad-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\quad)!\cdot(j^{s}-j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_s-\boldsymbol{l_{sa}}-s)!}{(D+j_{\quad}-\boldsymbol{n}-\boldsymbol{l_s}\quad)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \_ D-\boldsymbol{n}+1 \wedge$

$2 \leq \boldsymbol{l} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}$

$1 \leq j_{\quad} \leq j_{ik}-j_{sa}^{ik}+\quad \wedge j_s+j_{sa}^{ik}-1 \quad j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\quad j^{sa} \leq \boldsymbol{n}\quad j_{sa}-s$

$\boldsymbol{l_{ik}}\quad {}_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \quad +j_{sa}^{ik}\quad {}_{sa} > \boldsymbol{l_{ik}} \wedge$

$\quad +j_{sa}-\quad < \boldsymbol{l_{sa}} \leq D\quad \boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1 \wedge$

$D \geq \quad < n \wedge \quad \quad 0 \wedge$

$j_{sa} \leq j_{sa}^{i}\quad \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\quad \{j_{sa}^{s}, \mathbb{k}\quad {}_{sa}^{i}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s>3 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+j_{ik}-\mathbb{k}_2)}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - \quad j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} \quad _{ik} - 1)!}{(j_{ik} - j_s \quad 1)! \cdot (n_{is} \quad j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} \quad n_{sa} - 1)!}{(j^{sa} \quad _{ik} - 1)! \quad n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} + \boldsymbol{l_s} - \boldsymbol{l_{ik}})} \right.
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(j_s-2)!}\cdot$$

$$\frac{(j_{sa}^{ik}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-1)!\cdot(j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{\boldsymbol{l}=1}^{(\boldsymbol{l_{ik}}-1)}\ \sum_{(j_s=j_{ik}+\boldsymbol{l}+\boldsymbol{l_{ik}})}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}-1)}\ \sum_{j_{ik}=j_{sa}^{ik}+1}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

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$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} -$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa}$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}}$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} -$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right. \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\ )} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{\boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{l}} \sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} + j_{sa}^{ik} - D - j_{sa}}^{(\ )} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{n} \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)} \right.$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-1)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-\boldsymbol{l_{sa}})!}\Bigg)+$$

$$\Bigg(\sum_{k=1}^{\boldsymbol{l}}\sum_{(j_s=2)}^{(j_{ik}-j_{sa}-1)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}-D-j_{sa}}^{+j_{sa}^{ik}-\boldsymbol{l}}\sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

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$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}} \sum_{(j_s=2)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\left.\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq {}_{\boldsymbol{i}}\boldsymbol{l} - 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

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$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{s}} \sum_{k=l} \sum_{(\ldots 2)}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)}$$

$$\sum_{\boldsymbol{l_{ik}} = \boldsymbol{l_{sa}} + \boldsymbol{n}}^{\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l} - j_{sa} + 1} \sum_{(\ldots \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot \left(j_{ik} - j_s - j_{sa}^{ik} + 1\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

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$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$ {}_{z}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}} - \boldsymbol{l} - j_{sa}^{ik} + 2)} \sum_{(j_s = \boldsymbol{l_{sa}} + \boldsymbol{n} - D - j_{sa} + 1)} \right.$$

$$\sum_{j_{ik} = j_s + \boldsymbol{l_{ik}} - \boldsymbol{l_s}} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{(\ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\left. \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot \right)$$

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$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\Bigg(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)}\sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1}$$

$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-1)}\sum_{(j^{sa}=j_{ik}+}^{}$$

$$\sum_{}^{(n_i-j_s+1)}\sum_{(n_{is}+\mathbb{k}-j_s+1)}^{}$$

$$\sum_{n_{is}+j_s-\mathbb{k}_1}^{}\sum_{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{}$$

$$\sum_{n_{ik}=}^{}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-1)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(n_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\sum_{(j_s=2)}^{}\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-j_{ik}-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(j^{sa}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{n}-\boldsymbol{l}-1)!}{(j_s-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l} \leq \boldsymbol{n}-1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j^{ik} \leq j^{sa} \leq D+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j^{ik}+1=\boldsymbol{l_s}+\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D+j_{sa}-\boldsymbol{n} \leq \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1 \wedge$

$\boldsymbol{n} \geq \boldsymbol{n}-1 \wedge I=\mathbb{k}>=0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s>3 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

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$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{ik}}-\boldsymbol{l}-j_{sa}^{ik}+2)} \sum_{(j_s=2)}
$$

$$
\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D}
$$

$$
\sum_{n_i=\boldsymbol{n}}^{n} \sum_{=\boldsymbol{n}+}^{(j_s+1)}
$$

$$
\sum_{}^{n_{is}+j_s-j_{ik}} \sum_{}^{(n_{ik}+j_{ik}-}
$$

$$
\sum_{}^{j_{ik}+1} \sum_{=\boldsymbol{n}-j^{sa}+1)}^{(}
$$

$$
\frac{(n_i - n_{is}}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot
$$

$$
\frac{s} - n_{ik} - 1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot
$$

$$
\frac{(n_{} - n_{sa}-1)!}{a} - j_{ik} - 1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}
$$

$D \geq \boldsymbol{n} < n \quad \boldsymbol{l} \neq \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$\boldsymbol{\quad} D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

GÜLDÜMYA

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)} \right.
$$

$$
\sum_{j_{ik}=\boldsymbol{n}+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\quad)} \sum_{(\quad - j_{sa}^{ik})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)} \right.
$$

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$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}}$$

$$\frac{(n_i}{(j_s-2)!\cdot(n_i-n_{is}}\cdot$$

$$\frac{(n_{is}-n_{ik}}{(j_{ik}-j_s+1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)}{(j^{sa}-j_{ik}-1)!\cdot(n_{sa}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(\boldsymbol{l}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})} \sum_{(j_s=2)} \sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

GÜLDÜNYA

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + \boldsymbol{l} \wedge$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} - j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa} = j_{sa} - \mathbb{k} \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{ik}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \ldots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = \mathbb{k}_1 + \mathbb{k} \wedge$

$\mathbb{k}_z: \mathbb{k}_z \geq 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)} \right.$$

$$\left. \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\ \ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})} \right.$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}-\boldsymbol{l}-1)!}{(\boldsymbol{l_{sa}}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(\boldsymbol{n}+j_{sa}-j^{sa}-\boldsymbol{l}-s)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\left(\sum_{k=\boldsymbol{l}}^{\boldsymbol{l_s}}\ \sum_{(j_s=\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa}+1)}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\right.$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1}\ \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ \ )}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

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$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_{sa}}+\boldsymbol{n}-D-j_{sa})}\ \sum_{(j_s-)}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l}-j_{sa}+1}\ \sum_{k=\boldsymbol{l_{sa}}+\boldsymbol{n}}^{k-D-j_{sa}}\ \sum^{(\ )}_{-\boldsymbol{l_{ik}})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-j_s+1)}\ \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-k-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

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$$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$$

$$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$$

$$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$$

$$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$$

$$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$$

$$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$
{}_{fz}S_{j_s, j_{ik}, \ldots} = \left(\sum_{k=\boldsymbol{l}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik} = j^{sa} + \boldsymbol{l_{ik}} - \boldsymbol{l_{sa}}} \sum_{(j^{sa} = \boldsymbol{l_{ik}} + \boldsymbol{n} + j_{sa} - D - j_{sa}^{ik})}^{(\boldsymbol{l_s} + j_{sa} - \boldsymbol{l})}
$$

$$
\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}
$$

$$
\sum_{n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_{sa} = \boldsymbol{n} - j^{sa} + 1)}^{(n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\left. \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot \right)
$$

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$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)+$$

$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})}\sum_{(j_s=2)}^{}\right.$$

$$\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_s}+j_{sa}}\sum_{(j_{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+}^{}$$

$$\sum_{}^{(n_i-j_s+1)}\sum_{(n_{is}+\mathbb{k}-j_s+1)}^{}$$

$$\sum_{n_{is}+j_s-\mathbb{k}_1}^{}\sum_{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}^{}$$

$$\sum_{n_{ik}=}^{\mathbb{k}_2-j_{ik}+1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(n_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}^{}\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)}\sum_{(j^{sa}=\boldsymbol{l_s}+j_{sa}-\boldsymbol{l}+1)}^{}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}-j_{ik}-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{sa}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j_{sa}-\boldsymbol{n}-1)!\cdot(j_{sa}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{n}-\boldsymbol{l}-1)!}{(\boldsymbol{n}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+1 \leq \boldsymbol{l} \leq \boldsymbol{n}-1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s}+\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n} \leq \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1 \wedge$

$\boldsymbol{n}=\boldsymbol{n}+\mathbb{k} \wedge I=\mathbb{k}>=0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s>3 \wedge \boldsymbol{s}=s+\mathbb{k} \wedge$

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$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}
$$

$$
\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}}^{(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1)} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik}}
$$

$$
\sum_{n_i=\boldsymbol{n}+}^{n} \sum_{(\boldsymbol{n}+ j_s+1)}
$$

$$
\sum_{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}+j_{ik}-j^{sa})}
$$

$$
\sum_{+1} \sum_{(\boldsymbol{n}-j^{sa}+1)}
$$

$$
\frac{(n_i - n_{is}}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot
$$

$$
\frac{s - n_{ik} - 1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot
$$

$$
\frac{(n - n_{sa}-1)!}{(a - j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$2 \leq \boldsymbol{l_s} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

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$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(j_s=j_{ik}-\boldsymbol{l}+1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}} \sum_{(\ )}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-n_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

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$$\left(\sum_{k=\boldsymbol{l}}^{(j_{ik}-j_{sa}^{ik})}\sum_{(j_s=2)}^{\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\ )}\sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s+1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}+$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1}\sum_{j_{ik}=\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{l}+1}^{(\ )}\sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

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$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(j_{ik}-j_s-j_{sa}+1)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + \boldsymbol{l} \wedge$

$D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} + 1 \leq \boldsymbol{l} \leq {}_{i}\boldsymbol{l} - 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} - j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \mathbb{k} > 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = \mathbb{k}_1 + \mathbb{k} \wedge$

$\mathbb{k}_z: \mathbb{k}_2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - \boldsymbol{n} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (n_{sa} - j^{sa})!} \cdot$$

$$\frac{\boldsymbol{l} - 1)!}{(j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1)!}{(j_{ik} + \boldsymbol{l_{ik}} - j_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D - j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{l} < n \wedge \boldsymbol{l} \neq \boldsymbol{l_s} \leq D - \boldsymbol{n} +$

$2 \leq \boldsymbol{l} \leq D + \boldsymbol{l_s} - j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}} \wedge$

$1 \leq j_{ik} \leq j_{ik} - j_{sa}^{ik} + \wedge j_s + j_{sa} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \leq \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$> \boldsymbol{n} < \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)} \right.
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

$$
\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}
$$

$$
\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
$$

$$
\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot
$$

$$
\frac{(n_{ik} + n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) +
$$

$$
\left(\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)} \sum_{(j_s=\boldsymbol{l_{ik}}+\boldsymbol{n}-D-j_{sa}^{ik}+1)} \right.
$$

$$
\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}
$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - 1)!}{(j_s - 2)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(j_s + \boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s})! \cdot (\boldsymbol{l_{ik}} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} +$$

$$\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l}+\boldsymbol{n}-D-j_{sa})} \sum_{j_s=2)}^{\boldsymbol{l_{ik}}-\boldsymbol{l}+1} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

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$$\frac{(\boldsymbol{l_s}-\boldsymbol{l}-1)!}{(\boldsymbol{l_s}-j_s-\boldsymbol{l}+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot\left(j_{ik}-j_s-j_{sa}^{ik}+1\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-}\Big)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}\neq\ {}_{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge$

$\boldsymbol{l_{sa}}>D+\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{n}-j_{sa}^{ik}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>=0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}=j_{sa}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\right\}\wedge$

$s>3\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}}=\sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s}-\boldsymbol{l}+1)}\sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+\boldsymbol{l_{ik}}-\boldsymbol{l_s}}^{(\boldsymbol{l_{sa}}-\boldsymbol{l}+1)}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{is}=\boldsymbol{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

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$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_s} - \boldsymbol{l} - 1)!}{(\boldsymbol{l_s} - j_s - \boldsymbol{l} + 1)! \cdot (j_s - 2)!}$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - \right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(n_{sa} + j_{sa}^{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_s} - s)!}{(D + j^{sa} -)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} \neq \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j^{ik} - j_{sa} = \wedge$

$\boldsymbol{l_{ik}} > D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa} - \wedge j_{sa}^{ik} = - 1 \wedge j_{sa}^{s} = j_{s} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_{} , \cdots, j_{s} \wedge$

$s > \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge = \mathbb{k}_1 + \mathbb{k} \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}}^{(\boldsymbol{l_s} - \boldsymbol{l} + 1)} \sum_{(j_s = 2)}$$

$$\sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{\boldsymbol{l_{ik}} - \boldsymbol{l} + 1} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{is} = \boldsymbol{n} + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

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$$\sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1}\ \sum_{(n_{sa}=\boldsymbol{n}-j^{sa}+1)}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}$$

$$\frac{(n_i-n_{is}-1)!}{(j_s-2)!\cdot(n_i-n_{is}-j_s+1)!}\cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)!\cdot(n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}-1)!}{(\boldsymbol{l_s}-j_s+1)!\cdot(j_s-2)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(j_s+\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_{ik}}-j_s-j_{sa}^{ik}+1)!}\cdot$$

$$\frac{(D+\boldsymbol{l_{sa}}-\boldsymbol{l_{sa}}-s)!}{(D+\boldsymbol{l_{sa}}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$$\Big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}=\ _{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}})\vee$$

$$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}=\ _{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}}\wedge$$

$$D+\boldsymbol{l_{sa}}-\boldsymbol{n})\vee$$

$$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}=\ _{\boldsymbol{i}}\boldsymbol{l}\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq\boldsymbol{n}+j_{sa}-s\wedge$$

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$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k=\boldsymbol{l}} \sum_{(j_s=1)} \sum_{=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}} \sum_{=\boldsymbol{n}+\mathbb{k}_2} \sum_{+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2) \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{sa} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!}$$

$\big((D \geq \quad < n \wedge \boldsymbol{l} = \quad _i \boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \quad = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{sa}} \quad + j_{sa} - \boldsymbol{n} \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \quad _i \boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

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$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n})) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$S_{j_s, j_{ik},} = \sum_{k=\ _{\boldsymbol{i}}\boldsymbol{l}}^{(\quad)} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{\left(\boldsymbol{l_{sa}} -\ _{\boldsymbol{i}}\boldsymbol{l}+1\right)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

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$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} \le D + j_{sa}^{ik} - \boldsymbol{n} \wedge \boldsymbol{l_i} \le D + s - \boldsymbol{n} \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$\sum_{j_s, j_{ik}, j^{sa}} \sum_{k=\ _i\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}^{\left(\boldsymbol{l_{sa}} - \ _i\boldsymbol{l}+1\right)} \sum_{=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa})}$$

$$\sum_{=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$\Big((D \ge \boldsymbol{n} < n \wedge \boldsymbol{l} = \ _i\boldsymbol{l} \wedge \boldsymbol{l_s} \le D - \boldsymbol{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

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$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{sa}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge$

$\boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n})) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s,\ldots,j^{sa}} = \sum_{k=\ _{\boldsymbol{i}}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}^{\boldsymbol{l_{ik}} - \ _{\boldsymbol{i}}\boldsymbol{l}+1} \sum_{j_{ik}=j_{sa}^{ik}}^{\left(\boldsymbol{l_{sa}} - \ _{\boldsymbol{i}}\boldsymbol{l}+1\right)} \sum_{(j^{sa}=j_{sa})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

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$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} \leq D + j_{sa}^{ik} - \boldsymbol{n} \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$f_{(j_s, j_{ik}, j^{sa})} = \sum_{k=\ {}_{\boldsymbol{i}}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}^{\boldsymbol{l_{sa}} + j_{sa}^{ik} - {}_{\boldsymbol{i}}\boldsymbol{l} - j_{sa} + 1} \sum_{j_{ik} = j_{sa}^{ik}}^{(\ )} \sum_{(j^{sa} = j_{ik} + j_{sa} - j_{sa}^{ik})}^{n} \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{(n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1)}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2} \sum_{n_{sa} = \boldsymbol{n} - j^{sa} + 1}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

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$$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$$

$$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{n} - j_{sa}^{ik} \wedge$$

$$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$$

$$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s < \boldsymbol{l_{sa}} \wedge$$

$$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$$

$$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$$

$$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)$$

$$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$$

$$\boldsymbol{l_{sa}} > D + \boldsymbol{l_{ik}} + j_{sa} - \boldsymbol{n} - j_{sa}^{ik}\Big) \wedge$$

$$\boldsymbol{n} > \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$$

$$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$$

$$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$$

$$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{\left(\boldsymbol{l_{sa}}-\ {}_{i}\boldsymbol{l}+1\right)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot
$$

$$
\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-j^{sa})!}\cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-\mathbb{k}_2)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}
$$

$$
\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge
$$

$$
1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge
$$

$$
j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge
$$

$$
\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge
$$

$$
D+j_{sa}^{ik}-\boldsymbol{n} < \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1 \wedge
$$

$$
D+s-\boldsymbol{n} < \boldsymbol{l_i} \leq D+\boldsymbol{l_{sa}}+s-\boldsymbol{n}-j_{sa}) \vee
$$

$$
(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge
$$

$$
1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge
$$

$$
j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge
$$

$$
\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s = \boldsymbol{l_{sa}} \wedge
$$

$$
D+j_{sa}-\boldsymbol{n} < \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1)\Big) \wedge
$$

$$
D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge
$$

$$
j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik} = j_{sa}-1 \wedge j_{sa}^{s} = j_{sa}^{ik}-1 \wedge
$$

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$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\ {}_i\boldsymbol{l}} \sum_{(j_s=}^{(\ )}
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(\boldsymbol{l}_{sa}\ {}_i\boldsymbol{l}+1)}^{(\boldsymbol{l}_{sa}\ {}_i\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_i=\boldsymbol{n}+\ {}_i\boldsymbol{l}+1)}^{(n_i-j_{ik}-\mathbb{k}_1)} \sum_{n_{ik}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(\ - 2)!\ (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{ik} - 1)!\ (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_i\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_i\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

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$\boldsymbol{l_{sa}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_s - s = \boldsymbol{l_s} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{sa}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge$

$\boldsymbol{l_{sa}} > D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \ >= 0 \wedge$

$j_{sa} \leq j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}, j_{sa}, j_{sa}^{i}\} \wedge$

$s > 0 \wedge = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k= \ _{\boldsymbol{i}}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}$$

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$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-\ {}_{\boldsymbol{i}}\boldsymbol{l}+1}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{\left(\boldsymbol{l_{sa}}-\ {}_{\boldsymbol{i}}\boldsymbol{l}+1\right)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}\ \sum_{n_{sa}=\boldsymbol{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(\quad-1)!}{(\quad+j^{sa}-\boldsymbol{n}-\quad)!\cdot(\boldsymbol{n}-j^{sa}-\quad)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-\quad)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}+1)!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+\quad-\boldsymbol{l_{ik}}-\quad)!}{(j_{ik}+\quad-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D+\quad-\boldsymbol{l_{sa}}-s)!}{(\quad+j^{sa}-\quad-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_{s} \leq j_{ik} - j_{sa}^{ik} + \quad \wedge j_s + j_{sa}^{ik} - 1 \quad \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \quad {}^{sa} \leq \boldsymbol{n} \quad j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - \quad {}^{ik}_{sa} + 1 > \boldsymbol{l_s} \wedge \quad + j_{sa}^{ik} - \quad {}_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \quad \leq \boldsymbol{l_{ik}} \leq D \quad \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D + \quad \boldsymbol{n} < \boldsymbol{l_i} \quad \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$

$(D \geq \boldsymbol{n} < \quad \wedge \boldsymbol{l} = \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$\quad < j_{s} \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\Big) \wedge$

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$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=1}^{\boldsymbol{l_{sa}}} \sum_{(j_s=1)}^{(\ )} $$

$$ \sum_{j_{ik}=\boldsymbol{l_s}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_i}-j_{sa}-1} \sum_{(j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} $$

$$ \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{(n_i-\boldsymbol{n}-\mathbb{k}_1+1)} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(\ )} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{j^{sa}-\mathbb{k}_2} $$

$$ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot $$

$$ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot $$

$$ \frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot $$

$$ \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} $$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \boldsymbol{l_i} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} + j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{sa} + j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

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$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{\boldsymbol{l}_{\boldsymbol{i}}} \sum_{(j_s=1)}^{(\ldots} $$

$$ \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j\ldots \boldsymbol{l}_{ik}+\boldsymbol{n}+j_{sa}-D-j\ldots)}^{(\boldsymbol{l}\ldots j_{sa}-\boldsymbol{l}_{\boldsymbol{i}}-j\ldots+1)} $$

$$ \sum_{n_i=\ldots}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\ldots j_{ik}+1)}^{(\ldots \mathbb{k}_1+1)} \sum_{n_{sa}=\ldots j^{sa}+1}^{\ldots+j_{ik}-j^{sa}-\mathbb{k}_2} $$

$$ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - \ldots)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j\ldots)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot $$

$$ \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot $$

$$ \frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot $$

$$ \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} $$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \boldsymbol{l_{sa}} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

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$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\ _{\boldsymbol{i}}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\frac{(n_i \quad -1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} \quad +1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} \quad -1)!}{(j^{sa} - j_{ik} \quad)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} \quad -1)!}{(n_{sa} + j^{sa} \quad \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \quad \boldsymbol{a} - s)!}{(D + j_{sa} \quad \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=\ _{\boldsymbol{i}}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa}+1)}^{\left(\boldsymbol{l_{sa}} - \ _{\boldsymbol{i}}\boldsymbol{l}+1\right)} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot (j^{sa} - j_{sa})!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right)
$$

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$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, \ldots, j_{sa}} = \left(\sum_{k={}_{\boldsymbol{i}}\boldsymbol{l}}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{(\ )} \sum_{(j^{sa}=j_{sa})}^{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k={}_{\boldsymbol{i}}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{\left(\boldsymbol{l_{sa}}-{}_{\boldsymbol{i}}\boldsymbol{l}+1\right)} \sum_{(j^{sa}=j_{sa}+1)} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\left. \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \right.
$$

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$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}+1)!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Big)$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}}\big) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{s} \leq j_{sa} - 1 \wedge j_{sa}^{s} \leq j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s} \leq \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{i}, j_{sa}, \cdots j_{sa}^{i}\} \wedge$

$s > 0 \wedge \boldsymbol{s} = s + \mathbb{k}$

$\mathbb{k}_z : z = \cdots \wedge \mathbb{k} = \mathbb{k}_1 + \cdots \Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\ {}_{\boldsymbol{i}}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik})}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\left.\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot\right.$$

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$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}-s}\Bigg)+$$

$$\left(\sum_{k=\ \boldsymbol{i}\boldsymbol{l}}^{(\ )}\sum_{(j_s=1)}^{\boldsymbol{l_{ik}}-\ \boldsymbol{i}\boldsymbol{l}+1}\sum_{\ ik}^{\left(\ a-\ \boldsymbol{i}\boldsymbol{l}+1\right)}\sum_{(j^{sa}\ \ sa+1)}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{-j_{ik}+1)}^{(n_i-j_{ik}-\ \ 1)}\sum_{=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}\ \ \mathbb{k}_2}$$

$$\frac{(n_i-n_{ik}}{ik}-2)!\,(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(\ -n_{sa}\ \ 1)!}{sa}-j_{ik}-1)!\,n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}+1)!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D\geq \boldsymbol{n}<n\wedge \boldsymbol{l}\quad \boldsymbol{l_{sa}}\leq D+j_{sa}-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{\ }-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$\ +j_{sa}\ \ _{sa}^{ik}\leq j^{sa}\leq \boldsymbol{n}+j_{sa}-s\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge$

$D\geq \boldsymbol{n}<n\wedge I=\mathbb{k}>=0\wedge$

$j_{sa}\leq j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}\colon\left\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\right\}\wedge$

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$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\ _{\boldsymbol{i}}\boldsymbol{l}} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\frac{(n_i - \quad - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} \quad + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} \quad 1)!}{(j^{sa} - j_{ik} \quad (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} \quad}{\quad_{sa} + j^{sa} \quad \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\left. \frac{\quad + j_{sa} - \quad \boldsymbol{a} - s)!}{(D + j_{sa} \quad \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=\ _{\boldsymbol{i}}\boldsymbol{l}} \sum_{\quad =1)}^{(\ \quad_{sa}+j_{sa}^{ik}-} \sum_{j_{ik}=j_{sa}^{ik}+1}^{\quad -j_{sa}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right)
$$

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$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, \ldots, j_{sa}} = \left(\sum_{k=\ {}_{\boldsymbol{i}}\boldsymbol{l}}^{(\ \ )} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ \ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j_{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=\ {}_{\boldsymbol{i}}\boldsymbol{l}}^{(\ \ )} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_{ik}} - \ {}_{\boldsymbol{i}}\boldsymbol{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ \ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\left. \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \right.
$$

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$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot (j_{ik} - j$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1$ $_{sa}$ ^{ik} $- 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}$ $\wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z$ $2 \wedge \mathbb{k} = \mathbb{k}_1$ $\mathbb{k}_2 \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k = {}_{\boldsymbol{i}}\boldsymbol{l}}^{(\ )} \sum_{(j_s = 1)}^{(\ )} \sum_{j_{ik} = j_{sa}^{ik}} \sum_{(j^{sa} = j_{sa})}^{(\ )} \right.$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{n_{sa} = \boldsymbol{n} - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

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$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}-s)!}\Bigg)+$$

$$\Bigg(\sum_{k=\ _{i}\boldsymbol{l}}^{(\ )}\sum_{(j_s=1)}\sum_{j_{ik}=j_{sa}^{ik}}^{\left(\boldsymbol{l_{sa}}-\ _{i}\boldsymbol{l}+1\right)}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}\ \sum_{n_{sa}}^{n_{ik}+j_{ik}-j^{sa}-}$$

$$\frac{(n_i\quad -1)}{(j_{ik}-2)!\,(n_i-n_{ik}\quad +1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}\quad 1)!}{(j^{sa}-j_{ik}\quad (n_{ik}+j_{ik}-n_{sa}-j^{sa})!}$$

$$\frac{(n_{sa}}{{}_{sa}+j^{sa}\quad \boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l}_{sa}+j_{sa}^{ik}-\quad -j_{sa})!}{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-{}^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(D+\quad -\boldsymbol{l_{sa}}-s)!}{(D\quad j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D\geq \boldsymbol{n}<n\wedge \boldsymbol{l}=\ _{i}\boldsymbol{l}\wedge \boldsymbol{l_s}\leq D-\quad +1\wedge$

$1\leq j_{\quad}\leq j_{ik}-j_{sa}^{ik}+\quad \wedge j_s+j_{sa}^{ik}-1\quad \leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\quad {}^{sa}\leq \boldsymbol{n}\quad _{sa}-s\wedge$

$\boldsymbol{l_{ik}}\quad {}_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\quad +j_{sa}^{ik}-\quad _{sa}=\boldsymbol{l_{ik}}\wedge$

$D+j_{sa}^{ik}-\quad \leq \boldsymbol{l_{ik}}\leq D\quad \boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1\wedge$

$D\geq \quad <n\wedge I\quad \neq 0\wedge$

$j_{sa}\leq j_{sa}^{i}\quad \wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\left\{j_{sa}^{s},\mathbb{k}\quad {}_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,j_{sa}^{i}\right\}\wedge$

$s>3\wedge \boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z\colon z=2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2\Rightarrow$

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$$
{}_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\ _{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}^{} \sum_{j_{ik}=j_{sa}^{ik}}^{} \sum_{(j^{sa}=j_{sa})}^{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(\quad - 1)!}{(n_{\quad} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \quad)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\quad - s)!} \right) +
$$

$$
\left(\sum_{k=\ _{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}^{} \sum_{j_{ik}=\quad + j_{sa}^{ik} - j_{sa}}^{} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{\left(\boldsymbol{l_{sa}} - \ _{i}\boldsymbol{l}+1\right)} \right.
$$

$$
\sum_{=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(\quad - j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot
$$

$$
\left. \left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right) \right)
$$

$$
\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ _{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge
$$

$$
1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge
$$

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$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \le D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \ge \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \le D - \boldsymbol{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{sa}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \le D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)) \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz_{j_{ik}, j^{sa}} = \left(\sum_{k={}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +$$

$$\left(\sum_{k={}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}-{}_{i}\boldsymbol{l}+1} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{\left(\boldsymbol{l_{sa}}-{}_{i}\boldsymbol{l}+1\right)} \right.$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!}$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\quad - j^{sa})!}$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}}{(\boldsymbol{l_{ik}} - j_{ik} - \quad + 1)! \cdot (j_{ik} - \quad)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} \quad \boldsymbol{l_{ik}} - j_{sa})}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}}) \cdot (j^{sa} \quad - j_{sa})!} \cdot$$

$$\frac{+ j_{sa} - \quad - s)!}{D + j^{sa} - \boldsymbol{n} - \quad)! \cdot (\boldsymbol{n} \quad j_{sa} - j^{sa} - s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \quad _{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j \quad j_{sa}^{ik} - 1 \leq j \quad \leq j^{sa} \quad _{ik} \quad _{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} \quad - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \quad \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} \quad \boldsymbol{l_{ik}} \wedge$

$D \quad + j_{sa}^{ik} - \boldsymbol{n} \quad \boldsymbol{l_{ik}} \leq D \quad \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \quad >= 0 \wedge$

$j_{sa} \leq j_s \quad - 1 \wedge j_{sa}^{ik} = j_s \quad - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa} \quad , j_{sa}, \quad j_{sa}^{i}\} \wedge$

$s \quad s \wedge \quad = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \quad \quad = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\quad _{\boldsymbol{i}}\boldsymbol{l}}^{(\quad)} \sum_{(j_s=1)}^{(\quad)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\quad)} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

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$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\quad - s)!}\Bigg)$$

$$\left(\sum_{k=\ \boldsymbol{i}\boldsymbol{l}}^{(\ )} \right.$$

$$\boldsymbol{l_{sa}}+ \qquad +1 \qquad (\ )$$

$$\sum_{j_{ik}\quad +\boldsymbol{n}+j_{sa}^{ik}\quad j_{sa}\,(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}$$

$$\sum_{\quad -\boldsymbol{n}+\mathbb{k}\,(n_{ik}=\boldsymbol{n}-\quad -j_{ik}+1)}^{n} \sum_{n_{ik}=j_{ik}-\mathbb{k}_1+\quad}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(\quad - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg)$$

$D \geq \boldsymbol{n} < \quad \wedge \boldsymbol{l} = \ \boldsymbol{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

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$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{(\ )} \sum_{(\ =j_{sa})}^{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{\left(\boldsymbol{l_{ik}}+j_{sa}-\ {}_{i}\boldsymbol{l}-j_{sa}^{ik}+1\right)} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

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$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}+1)!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n} < \boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}-1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=2 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2 \Rightarrow$

$$_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\ {}_{\boldsymbol{i}}\boldsymbol{l}}^{(\ )}\sum_{(j_s=1)}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}\sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\left.\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j_{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}-s)!}\right)+$$

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$$\left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )}\sum_{(j_s=1)}^{\boldsymbol{l_{ik}}-\ {}_{i}\boldsymbol{l}+1}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\ )}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}\sum_{n_{sa}=\boldsymbol{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-\quad-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-\quad)!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-\quad)!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}+1)!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_{sa}}-s)!}{(D-j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}}+\quad)!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_{ik}} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+\quad > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n} < \boldsymbol{l_{ik}} < D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1\big) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \quad \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+\quad > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} > D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1\big)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

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$s > 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa}} = \sum_{k={}_i\mathbf{l}}^{(\ )} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=\mathbf{l_{ik}}+\mathbf{n}-D}^{\mathbf{l_{ik}}-{}_i\mathbf{l}+1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{n_i=\mathbf{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2-j_s+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\mathbf{n}-1)!\cdot(\mathbf{n}-j^{sa})!}\cdot$$

$$\frac{(\mathbf{l_{ik}}-\mathbf{l_s}-j_{sa}^{ik}+1)!}{(\mathbf{l_{ik}}-j_{ik}-\mathbf{l_s}+1)!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D+j_{sa}-\mathbf{l_{sa}}-s)!}{(D+j^{sa}-\mathbf{n}-\mathbf{l_{sa}})!\cdot(\mathbf{n}+j_{sa}-j^{sa}-s)!}$$

$D \geq \mathbf{n} < n \wedge \mathbf{l} = {}_i\mathbf{l} \wedge \mathbf{l_s} \leq D - \mathbf{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \mathbf{n} + j_{sa} - s \wedge$

$\mathbf{l_{ik}} - j_s + 1 = \mathbf{l_s} \wedge \mathbf{l_{sa}} + j_{sa}^{ik} - j_{sa} > \mathbf{l_{ik}} \wedge$

$\mathbf{l_{sa}} > D + j_{ik} + j_{sa} - \mathbf{n} - j_{sa}^{ik} \wedge$

$\mathbb{Z} \ni n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\mathbf{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ \ )} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{\left(\boldsymbol{l_{sa}} - {}_{i}\boldsymbol{l}+1\right)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\frac{(n_i - n_{ik} - \mathbb{k}_1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - \mathbb{k}_1 + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - \boldsymbol{n})!}{(n_{sa} - j^{sa} - \boldsymbol{n})! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_{sa} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot (j^{sa} - j_{sa})!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - s)! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} + \boldsymbol{l_{sa}} + j_{sa} - j_{sa}^{ik} - \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{sa}} > D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{sa}} - j_{sa} + 1 > \boldsymbol{l_s} \wedge$

$\boldsymbol{l_{sa}} > D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

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$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\ {}_i\boldsymbol{l}} \sum_{(j_s=}^{(\ )}
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-}^{\boldsymbol{l_{ik}}-\ {}_i\boldsymbol{l}+1} \sum_{(\boldsymbol{l_{sa}}-\ {}_i\boldsymbol{l}+1)}^{(\boldsymbol{l_{sa}}-\ {}_i\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(\ \ =\boldsymbol{n}\ \ +1)}^{(n_i-j_{ik}-\mathbb{k}\ \ )} \sum_{\ \ =\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j\ \ \mathbb{k}_2}
$$

$$
\frac{(n_i - n_{ik}}{\ \ - 2)!\ \ (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n\ \ - n_{sa} - 1)!}{(\ \ - j_{ik} - 1)!\ \ (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(\ \ j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \ \ < n \wedge \boldsymbol{l} = \ \ \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$\ \ + j\ \ \ j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} \leq D + j_{sa}^{ik} - \boldsymbol{n} \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

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$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{\boldsymbol{l}_i} \sum_{(j_s=1)}^{(\ldots)} \sum_{j_{ik}=j^{sa}-\boldsymbol{l}_{ik}-\boldsymbol{l}_{sa}}^{(\boldsymbol{l}_{sa}-\boldsymbol{l}_i+1)} \sum_{(j^{sa}=j_{sa}+1)}^{(\ldots)} \sum_{n_i=\ldots\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}-\ldots-j_{ik}+1)}^{(\ldots-\mathbb{k}_1+1)} \sum_{n_{sa}=\ldots j^{sa}+1}^{\ldots+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - \ldots)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \ldots \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq \ldots j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - \ldots \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} \ldots + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} \leq D + j_{sa}^{ik} - \boldsymbol{n} \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

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$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\ \ \boldsymbol{i}\boldsymbol{l}}^{(\ \ )} \sum_{(j_s=}
$$

$$
\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\ \ \boldsymbol{i}\boldsymbol{l}-j_{sa}+1} \sum_{j_{ik}+}^{(\ \ )} {}^{-\boldsymbol{l_{ik}})}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}(}^{n} \sum_{=\boldsymbol{n}}^{(n_i-j_{ik}-\mathbb{k}+1)} \sum_{=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-J\ \ \mathbb{k}_2}
$$

$$
\frac{n_i - n_{ik}}{-2)!\ \ n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{-n_{sa}-1)!}{-j_{ik}-1)!\ \ n_{ik}+j_{ik}-n_{sa}-j^{sa})!} \cdot
$$

$$
\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-1)! \cdot (\boldsymbol{n}-j^{sa})!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-j_{sa}^{ik}+1\right)!}{\left(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}+1\right)! \cdot \left(j_{ik}-j_s-j_{sa}^{ik}\right)!} \cdot
$$

$$
\frac{(D+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})! \cdot (\boldsymbol{n}+j_{sa}-j^{sa}-s)!}
$$

$D \geq \ \ < n \wedge \boldsymbol{l} = \ \ \boldsymbol{i}\boldsymbol{l} \ \ \boldsymbol{a} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} \ \ j_{sa}^{ik} + 1 \ \ _s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} \ \ _s - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \ \ > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$\ \ n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

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$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}}^{(\ )} \sum_{(j^{sa}=j_{sa})} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}} \sum_{(j^{sa}=j_{sa}+1)}^{\left(\boldsymbol{l_{sa}} - {}_{i}\boldsymbol{l}+1\right)} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!} \right)
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

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$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \le j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} \left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(\ )} \sum_{(j^{sa}=j_{sa})}^{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(\quad)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\ {}_{i}\boldsymbol{l}-j_{sa}+1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(\ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\left. \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \right.
$$

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$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot (j_{ik} - j$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - {}^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_{sa}} \leq D + j_{sa} - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik}$ $- 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\}$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k = {}_{\boldsymbol{i}}\boldsymbol{l}} \sum_{(j_s = 1)}^{(\ )} \sum_{j_{ik} = j_{sa}^{ik}} \sum_{(j^{sa} = j_{sa})}^{(\ )} \right.$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{n_{sa} = \boldsymbol{n} - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +$$

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$$\left(\sum_{k=\ _{i}\boldsymbol{l}}^{(\ )}\sum_{(j_s=1)}^{\boldsymbol{l_{ik}}-\ _{i}\boldsymbol{l}+1}\sum_{j_{ik}=j_{sa}^{ik}+1}^{(\ )}\sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}\sum_{n_{sa}=\boldsymbol{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-\ j^{sa})!}\cdot$$

$$\frac{(n_{sa}-1)!}{(n_{sa}+j^{sa}-\boldsymbol{n}-\ )!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\boldsymbol{l_s}-\ )!}{(\boldsymbol{l_{ik}}-j_{ik}-\boldsymbol{l_s}+1)!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D+\boldsymbol{l_{sa}}-\boldsymbol{l_{sa}}-s)!}{(D+j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ _{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n}<\boldsymbol{l_{ik}} \leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1 \wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i} \leq D+j_{sa}+s-\boldsymbol{n}-j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ _{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n}+j_{sa}-s \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}} \wedge$

$D+j_{sa}-\boldsymbol{n}<\boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1)\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i}-1 \wedge j_{sa}^{ik}=j_{sa}-1 \wedge j_{sa}^{s}=j_{sa}^{ik}-1 \wedge$

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$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \sum_{k=\ {}_{i}\boldsymbol{l}} \sum_{(j_s=}^{(\ )}
$$

$$
\sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}} \sum_{(\boldsymbol{l_{sa}}=\boldsymbol{l_{sa}}-D)}^{(\boldsymbol{l_{sa}}+\ {}_{i}\boldsymbol{l}+1)}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(\boldsymbol{n}=\boldsymbol{n}+j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_2+1)} \sum_{\boldsymbol{n}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}+\mathbb{k}_2}
$$

$$
\frac{(n_i - n_{ik}}{(\ - 2)!\,(n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{sa} - n_{sa} - 1)!}{(j_{ik} - j_{ik} - 1)!\,(n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot
$$

$$
\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}
$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} - j_{sa} + j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

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$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}-D-j_{sa}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\ {}_{i}\boldsymbol{l}-j_{sa}+1} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )}$$

$$\sum_{\mathbb{k}_1=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

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$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s,\ldots,j_{sa}} = \sum_{k=\ _{i}\boldsymbol{l}} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{\ldots}\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}} \sum_{(j^{\ldots}\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}^{(\ldots j_{sa}^{ik}+1)}$$

$$\sum_{n_i=\ldots}^{n} \sum_{(n_i-\ldots-\mathbb{k}_2-j_{ik}+1)}^{(n_i-\ldots-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}$$

$D \ldots n \wedge \boldsymbol{l} = \ _{i}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

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$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)} \sum_{j_{ik}=j^{sa}+\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{\left(\boldsymbol{l_{sa}}-\ {}_{i}\boldsymbol{l}+1\right)} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\left. \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \right) \cdot
$$

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$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\left.\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$${}_{fz}S_{j_{sa}, j_{ik}, j^{sa}} = \left(\sum_{k = {}_{\boldsymbol{i}}\boldsymbol{l}} \sum_{(j_s = 1)}^{(\ )} \sum_{j_{ik} = j_{sa}^{ik}} \sum_{(j^{sa} = j_{sa})}^{(\ )}\right.$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{n_{sa} = \boldsymbol{n} - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\left.\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!}\right) +$$

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$$\left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )}\sum_{(j_s=1)}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-\ {}_{i}\boldsymbol{l}-j_{sa}+1}\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{(\ )}\sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}\ \sum_{n_{sa}=\boldsymbol{n}-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-\ \ j^{sa})!}\cdot$$

$$\frac{(n_{\ }-1)!}{(n_{\ }-j^{sa}-\boldsymbol{n}-\ \ )!\cdot(\boldsymbol{n}-j^{sa})!}\cdot$$

$$\frac{-\boldsymbol{l_s}-\ \ )!}{-j_{ik}-\ \ +1)!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D-\ \ -\boldsymbol{l_{sa}}-s)!}{(D-\ \ -j^{sa}-\boldsymbol{n}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{n}+j_{sa}-j^{sa}-s)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = \ {}_{i}\boldsymbol{l} \wedge \boldsymbol{l}_s \leq \ \ - \boldsymbol{n} + 1$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s - \ \ - j_{sa}^{ik} - 1 \leq j_{ik} \leq \ \ ^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq \ \ ^{sa} \leq \boldsymbol{n} + j_{sa} - \ \ \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \ \ > \boldsymbol{l_s} \wedge \boldsymbol{l_{\ }} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{\ }}$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{\ }} \leq D + \boldsymbol{l_{\ }} - j_{sa}^{ik} - \boldsymbol{l} - 1 \wedge$

$D \geq \ \ < n \wedge I = \mathbb{k} > \ \ 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - \ \ \wedge j_{sa}^{ik} = j_{\ } - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{\ } \ \ j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = \ \ + \mathbb{k} \wedge$

$\ \ \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa}} = \left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )}\sum_{(j_s=1)}^{}\sum_{j_{ik}=j_{sa}^{ik}}^{}\sum_{(j^{sa}=j_{sa})}^{(\ )}\right.$$

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$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg) +$$

$$\left(\sum_{\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}^{\left(\boldsymbol{l_{ik}}+j_{sa}-\boldsymbol{l}-j_{sa}^{ik}+1\right)} \sum_{j_{ik}+j_{sa}-j_{sa}^{ik}+\boldsymbol{l_{ik}}-\boldsymbol{l}_{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik}}^{(\ )}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Bigg)$$

$$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$$

$$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$$

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$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}} = \left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{(\ )} \sum_{(j^{sa}=j_{sa})}^{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \cdot
$$

$$
\left. \frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j_{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=\ {}_{i}\boldsymbol{l}}^{(\ )} \sum_{(j_s=1)}^{\boldsymbol{l_{ik}} - {}_{i}\boldsymbol{l}+1} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{(\ )} \sum_{(j^{sa}=j_{ik}+\boldsymbol{l_{sa}}-\boldsymbol{l_{ik}})}^{(\ )} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\left. \frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j^{sa})!} \right)
$$

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$$\frac{\left(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1\right)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(D + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{n} + j_{sa} - j^{sa} - s)!}\Big)$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1\Big) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l} = {}_{\boldsymbol{i}}\boldsymbol{l} \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge$

$\boldsymbol{l_{ik}} > D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} >= 0 \wedge$

$j_{sa} \leq j_{sa}^{i} - 1 \wedge j_{s} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}, \mathbb{k}_2, j_{sa}, \ldots, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \boldsymbol{s} = s +$

$\mathbb{k}_z : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \ldots \Rightarrow$

$$fzS_{j_s, j_{ik}, j^{sa}} = \sum_{k = {}_{\boldsymbol{i}}\boldsymbol{l}}^{(\ )} \sum_{(j_s = 1)}^{\boldsymbol{l_{ik}} - {}_{\boldsymbol{i}}\boldsymbol{l} + 1} \sum_{j_{ik} = \boldsymbol{l_{ik}} + \boldsymbol{n} - D}^{(\ )} \sum_{(j^{sa} = j_{ik} + \boldsymbol{l_{sa}} - \boldsymbol{l_{ik}})}^{n} \sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{(n_{ik} = \boldsymbol{n} + \mathbb{k}_2 - j_{ik} + 1)}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2} \sum_{n_{sa} = \boldsymbol{n} - j^{sa} + 1}$$

GULDUNYA

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - 1)!}{(n_{sa} + j^{sa} - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j$$

$$\frac{(\boldsymbol{l_{ik}} - \boldsymbol{l_s} - j_{sa}^{ik} + 1)!}{(\boldsymbol{l_{ik}} - j_{ik} - \boldsymbol{l_s} + 1)! \cdot (- j_{sa}^{ik})!}$$

$$\frac{(D + j_{sa} - \boldsymbol{l}$$

$$(D + j^{sa} - \boldsymbol{n} - \boldsymbol{l_{sa}}$$

GÜLDÜNYA

DİZİN

B

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.1.1.1.1/3-4
tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.1.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.1.1.2.1/3-4
tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.2.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.1.1.3.1/3-4
tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.3.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bir bağımsız durumlu simetrinin son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.1.1.1.1/230-231
tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.1.1/187-188
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.1.1/321

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bir bağımsız durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.1.2.1.1/230-231
tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.2.1/187-188
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.2.1/321

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bir bağımsız durumlu bağımlı simetrinin son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.1.3.1/230-231
tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.3.1/187-188
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.3.1/321

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.1.4.1.1/3-4
tek kalan düzgün simetrik olasılık, 2.3.3.2.1.4.1.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.4.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.1.4.2.1/3-4
tek kalan düzgün simetrik olasılık, 2.3.3.2.1.4.2.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.4.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrinin son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.1.4.3.1/3-4
tek kalan düzgün simetrik olasılık, 2.3.3.2.1.4.3.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.4.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bağımsız durumlu

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simetrinin son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.1.1.1.1/233
tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.1.1/190
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.1.1/324-325
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bağımsız durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.1.1.2.1/233
tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.2.1/190
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.2.1/324-325
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bağımsız durumlu bağımlı simetrinin son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.1.1.3.1/233
tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.3.1/190
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.3.1/324-325
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrinin son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.1.6.1/3-4
tek kalan düzgün simetrik olasılık, 2.3.3.2.1.6.1.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.6.1.1/4
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.1.6.2.1/3-4
tek kalan düzgün simetrik olasılık, 2.3.3.2.1.6.2.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.6.2.1/4
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrinin son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.1.6.3.1/3-4
tek kalan düzgün simetrik olasılık, 2.3.3.2.1.6.3.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.6.3.1/4
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.1.1.1.1/118
tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.1.1/80-81
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.1.1/165
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin durumuna
tek kalan simetrik olasılık, 2.3.3.1.1.2.1/118
tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.2.1/80-81
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.2.1/165
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.1.1.3.1/118
tek kalan düzgün simetrik olasılık, 2.3.3.2.1.1.3.1/80-81
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.3.1/165
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.2.1.1.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.2.1.1.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.1.1.1/4
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk ve son durumunun bulunabileceği olaylara göre

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tek kalan simetrik olasılık, 2.3.3.1.2.1.2.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.2.1.2.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.1.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.2.1.3.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.2.1.3.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.1.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.2.2.1.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.2.2.1.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.2.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.2.2.2.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.2.2.2.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.2.2.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.2.2.3.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.2.2.3.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.2.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrinin ilk ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.2.4.1.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.2.4.1.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.4.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrinin ilk ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.2.4.2.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.2.4.2.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.4.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrinin ilk ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.2.4.3.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.2.4.3.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.4.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrinin ilk ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.2.6.1.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.2.6.1.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.6.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrinin ilk ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.2.6.2.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.2.6.2.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.6.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrinin ilk ve son durumunun bulunabileceği olaylara göre

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tek kalan simetrik olasılık, 2.3.3.1.2.6.3.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.2.6.3.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.6.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu simetrinin ilk ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.2.7.1.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.2.7.1.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.7.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrinin ilk ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.2.7.2.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.2.7.2.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.7.2.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.2.7.3.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.2.7.3.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.7.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.3.1.1.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.3.1.1.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.3.1.1.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.3.1.2.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.3.1.2.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.3.1.2.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.3.1.3.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.3.1.3.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.3.1.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.3.2.1.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.3.2.1.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.3.2.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.3.2.2.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.3.2.2.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.3.2.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.3.2.3.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.3.2.3.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.3.2.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin herhangi iki durumuna bağlı

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tek kalan simetrik olasılık, 2.3.3.1.4.1.1.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.4.1.1.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.4.1.1.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin herhangi iki durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.4.1.2.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.4.1.2.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.4.1.2.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin herhangi iki durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.4.1.3.1/4
tek kalan düzgün simetrik olasılık, 2.3.3.2.4.1.3.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.4.1.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.4.1.1.1/839-840

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.4.1.2.1/839-840

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.4.1.3.1/839-840

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.5.1.1.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.5.1.1.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.5.1.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.5.1.2.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.5.1.2.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.5.1.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.5.1.3.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.5.1.3.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.5.1.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.5.2.1.1/6
tek kalan düzgün simetrik olasılık, 2.3.3.2.5.2.1.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.5.2.1.1/10

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.5.2.2.1/6
tek kalan düzgün simetrik olasılık, 2.3.3.2.5.2.2.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.5.2.2.1/10

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.5.2.3.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.5.2.3.1/3-4

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tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.5.2.3.1/7
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.8.1.1.1/7
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.8.1.1.1/7-8
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.8.1.2.1/7
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.8.1.2.1/7-8
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.8.1.3.1/7
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.8.1.3.1/7-8
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.8.2.1.1/11
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.8.2.1.1/11
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.8.2.2.1/11
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.8.2.2.1/11
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.8.2.3.1/7
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.8.2.1.1/7-8
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.6.1.1.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.1.1.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.1.1.1/5-6
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.6.1.2.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.1.2.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.1.2.1/5-6
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.6.1.3.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.1.3.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.1.3.1/5-6
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.6.2.1.1/6
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.2.1.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.2.1.1/8
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

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tek kalan simetrik olasılık, 2.3.3.1.6.2.2.1/6
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.2.2.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.2.2.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.6.2.3.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.2.3.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.2.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.6.4.1.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.4.1.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.4.1.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.6.4.2.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.4.2.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.4.2.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.6.4.3.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.4.3.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.4.3.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.6.2.2.1/6
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.2.2.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.2.2.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.6.2.3.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.2.3.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.2.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bir bağımsız durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.6.4.1.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.4.1.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.4.1.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bir bağımsız durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.6.4.2.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.4.2.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.4.2.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bir bağımsız durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.6.4.3.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.4.3.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.4.3.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.6.6.1.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.6.1.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.6.1.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.6.6.2.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.6.2.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.6.2.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.6.6.3.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.6.3.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.6.3.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.6.7.1.1/6
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.7.1.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.7.1.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
tek kalan simetrik olasılık, 2.3.3.1.6.7.2.1/6
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.7.2.1/4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.7.2.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

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tek kalan simetrik olasılık, 2.3.3.1.6.7.3.1/5
tek kalan düzgün simetrik olasılık, 2.3.3.2.6.7.3.1/3-4
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.7.3.1/5
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.9.1.1.1/7
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.1.1.1/7-8
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.9.1.2.1/7
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.1.2.1/7-8
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.9.1.3.1/7
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.1.3.1/7-8
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımlı durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.9.2.1.1/11
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.2.1.1/11
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.9.2.2.1/11
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.2.2.1/11
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.9.2.3.1/7
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.2.3.1/7
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.9.4.1.1/7
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.4.1.1/11
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.9.4.2.1/7
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.4.2.1/11
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.9.4.3.1/7
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.4.3.1/11
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı
tek kalan simetrik olasılık, 2.3.3.1.9.6.1.1/7
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.6.1.1/11
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrinin ilk herhangi bir ve son

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durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık, 2.3.3.1.9.6.2.1/7

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.6.2.1/11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık, 2.3.3.1.9.6.3.1/7

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.6.3.1/11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık, 2.3.3.1.9.7.1.1/11

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.7.1.1/11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık, 2.3.3.1.9.7.2.1/11

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.7.2.1/11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık, 2.3.3.1.9.7.3.1/11

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.7.3.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.1.1.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.1.1.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.1.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.1.2.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.1.2.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.1.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.1.3.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.1.3.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.1.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.2.1.1/7

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.2.1.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.2.1.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.2.2.1/7

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.2.2.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.2.2.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.2.3.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.2.3.1/3-4

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tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.2.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.4.1.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.4.1.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.4.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.4.2.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.4.2.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.4.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.4.3.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.4.3.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.4.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.6.1.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.6.1.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.6.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.6.2.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.6.2.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.6.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.6.3.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.6.3.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.6.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.7.1.1/7

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.7.1.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.7.1.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.7.2.1/7

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.7.2.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.7.2.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.7.3.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.7.3.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.7.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.1.1.1/9

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tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.1.1.1/10

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.1.2.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.1.2.1/10

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.1.3.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.1.3.1/10

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.2.1.1/15-16

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.2.1.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.2.2.1/15-16

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.2.2.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.2.3.1/9-10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.2.3.1/10

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.4.1.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.4.1.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.4.2.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.4.2.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.4.3.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.4.3.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.6.1.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.6.1.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.6.2.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.6.2.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.6.3.1/9

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tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.6.3.1/16
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.10.7.1.1/15-16
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.7.1.1/16
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.10.7.2.1/15-16
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.7.2.1/16
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.10.7.3.1/9-16
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.7.3.1/16
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.11.1.1.1/10
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.1.1.1/10-11
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.11.1.2.1/10
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.1.2.1/10-11
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.11.1.3.1/10
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.1.3.1/10-11
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.11.2.1.1/10
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.2.1.1/17-18
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.11.2.2.1/17
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.2.2.1/17-18
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.11.2.3.1/10
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.2.3.1/10-11
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.11.4.1.1/10
tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.4.1.1/17-18
Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı
tek kalan simetrik olasılık, 2.3.3.1.11.4.2.1/10

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tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.4.2.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.4.3.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.4.3.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.6.1.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.6.1.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.6.2.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.6.2.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.6.3.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.6.3.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.7.1.1/17

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.7.1.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.7.2.1/17

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.7.2.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.7.3.1/[illegible]

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.7.3.1/10-11

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VDOİHİ'de Olasılık ve İhtimal konularının tanım ve eşitlikleri verilmektedir. Ayrıca VDOİHİ'de olasılık ve ihtimalin uygulama alanlarına da yer verilmektedir. VDOİHİ konu anlatım ciltleri ve soru, problem ve ispat çözümlerinden oluşmaktadır. Bu cilt bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz olasılık dağılımlardan, bağımsız olasılıklı durumla başlayıp ilk bağımlı durumu bağımlı olasılıklı dağılımın ilk bağımlı durumu hariç dağılımın başlayabileceği diğer bir bağımlı durum olan ve bağımsız olasılıklı durumla başlayan dağılımın aynı ilk bağımlı durumuyla başlayan dağılımlarda, simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre tek kalan simetrik olasılığın, tanım ve eşitliklerinden oluşmaktadır.

VDOİHİ Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumu simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık kitabında, bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımlardan, bağımsız olasılıklı durumla başlayıp ilk bağımlı durumu bağımlı olasılıklı dağılımın ilk bağımlı durumu hariç dağılımın başlayabileceği diğer bir bağımlı durum olan ve bağımsız olasılıklı durumla başlayan dağılımın aynı ilk bağımlı durumuyla başlayan dağılımlarda, simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre tek kalan simetrik olasılığın, tanım ve eşitlikleri verilmektedir.

VDOİHİ'nin diğer ciltlerinde olduğu gibi bu ciltte de verilen ana eşitlikler, olasılık tablolarından elde edilen verilerle üretilmiştir. Diğer eşitlikler ise ana eşitliklerden teorik yöntemle üretilmiştir. Eşitlik ve tanımların üretilmesinde dış kaynak kullanılmamıştır.

GÜLDÜNYA