VDOİHİ

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

Cilt 2.3.2.1.7.1.1.30

İsmail YILMAZ

2023

Matematik / İstatistik / Olasılık

ISBN: 978-625-6825-70-3

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VDOİHİ Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre ilk simetrik olasılık Cilt 2.3.2.1.7.1.1.30

İsmail YILMAZ

KÜTÜPHANE BİLGİLERİ

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e-Basım, s. XXV + 813

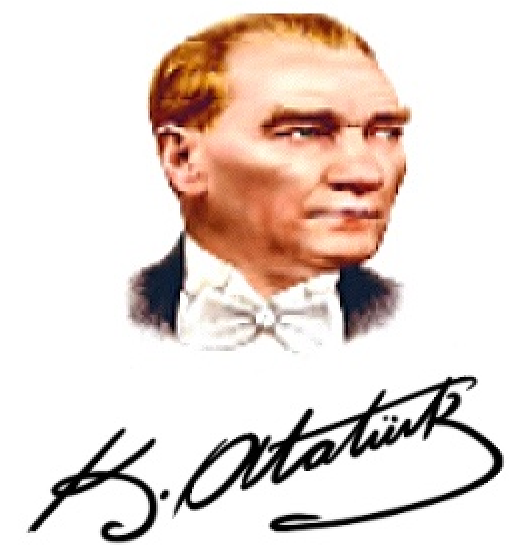
Kaynakça yok, dizin var

ISBN: 978-625-6825-70-3

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

Dili: Türkçe + Matematik Mantık

Türkiye Cumhuriyeti Devleti
Kuruluşunun
100.Yılı Anısına



DÜZELTME

Bu cilt için

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

simgesi yerine

$_{fz}S^{\text{İ}s}_{j_s}\ ,j_{ik},j^{sa},j_i$

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.

VDOİHİ'de Olasılık;

- ✓ Makinaların insan gibi düşünebilmesini, karar verebilmesini ve davranabilmesini sağlayacak gerçek yapay zekayla ilişkilendirilmiştir.
- ✓ Dillerin matematik yapısı olduğu gösterilmiştir.
- ✓ Tüm tabanlarda, tüm dağılım türlerinde ve istenildiğinde dağılım türü ve tabanı değiştirerek çalışabilecek elektronik teknolojisinin temelidir.
- ✓ Teorik kabullerle genetikle ilişkilendirilmiştir.
- ✓ Bilgi merkezli değerlendirme yöntemidir.

Sanırım bilgi ve teknolojideki kaderimiz veriyle ilişkilendirilmiş.

İÇİNDEKİLER

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Dizin .... [illegible]

Simge ve Kısaltmalar

n: olay sayısı

$\boldsymbol{n}$: bağımlı olay sayısı

$\mathbb{m}$: bağımsız olay sayısı

ι: bağımsız durum sayısı

I: simetrinin bağımsız durum sayısı

$\mathbb{I}$: 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

${}_{i}\boldsymbol{l}$: 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

${}_{fz}S_{j_i}^{\dot{I}S}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin son durumunun bulunabileceği olaylara göre ilk simetrik olasılık

${}_{fz}S_{j_i,0}^{\dot{I}S}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre ilk simetrik olasılık

${}_{fz}S_{j_i,D}^{\dot{I}S}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin son durumunun bulunabileceği olaylara göre ilk simetrik olasılık

${}_{fz}^{0}S_{j_i}^{\dot{I}S}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız durumlu simetrinin son durumunun bulunabileceği olaylara göre ilk simetrik olasılık

${}_{fz}^{0}S_{j_i,0}^{\dot{I}S}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre ilk simetrik olasılık

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${}_{fz}S^{\text{İS}}_{j^{sa}}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin durumuna bağlı ilk simetrik olasılık

${}_{fz}S^{\text{İS}}_{j^{sa},0}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin durumuna bağlı ilk simetrik olasılık

${}_{fz}S^{\text{İS}}_{j^{sa},D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin durumuna bağlı ilk simetrik olasılık

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${}_{fz}S^{\dot{I}SO}_{j_i}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin son durumunun bulunabileceği olaylara göre ilk düzgün olmayan simetrik olasılık

${}_{fz}S^{\dot{I}SO}_{j_i,0}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre ilk düzgün olmayan simetrik olasılık

${}_{fz}S^{\dot{I}SO}_{j_i,D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin son durumunun bulunabileceği olaylara göre ilk düzgün olmayan simetrik olasılık

${}^{0}_{fz}S^{\dot{I}SO}_{j_i}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız durumlu simetrinin son durumunun bulunabileceği olaylara göre ilk 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 sayısından (bağımlı olay sayısı) bir büyük olaylara (bağımsız olay sayısı) dağılımıyla bağımlı ve bir bağımsız olasılık dağılımlar elde edilir. Bağımlı dağılım farklı dizilimsiz dağılımda oluştuğunda, 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 hariç olasılık 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.

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 ve eşitlikleri verilmektedir.

Farklı dizilimsiz dağılımlarda simetrinin durumlarının olasılık dağılımındaki sırası, 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 VDOİHİ Cilt 1'de çıkarılan eşitliklerle birleştirilerek, bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımların yeni eşitlikleri elde edilecektir. Eşitlikleri adlandırılmasında da bağımlı olasılıklı farklı dizilimsiz dağılımlarda kullanılan adlandırmalar kullanılacaktır. Bu adların sonuna 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 ad kullanılması durumunda gerekmedikçe yeni tanımlama yapılmayacaktır.

Simetrinin durumlarının bağımlı olasılık farklı dizilimsiz dağılımlarındaki sırasına göre verilen eşitliklerdeki toplam alt 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 ciltte bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımlardan, bağımsız olasılıklı durumla başlayıp ilk bağımlı durumu bağımlı olasılıklı dağılımın ilk bağımlı durumu ve bağımlı olasılıklı dağılımın ilk bağımlı durumuyla başlayan dağılımlarda, simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre ilk simetrik olasılığın eşitlikleri verilmektedir.

SİMETRİDEN SEÇİLEN DÖRT DURUMA GÖRE İLK SİMETRİK OLASILIK

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

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

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

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

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

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

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot
$$

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

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

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!}
$$

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

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

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

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

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

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

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1}^{[illegible]} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=[illegible]} \sum_{([illegible]j_{sa})}^{(\ )} \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(\boldsymbol{l_i} + j_{sa} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

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

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

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

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

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

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

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s,[illegible]^{sa},j_i} = \sum_{k=1}^{[illegible]} \sum_{(j_s=1)}^{([illegible])} \sum_{j_{ik}=[illegible]}^{[illegible]} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{([illegible])} \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=[illegible]+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{([illegible]-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{[illegible]_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

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

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

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

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

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

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

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

$$j_{sa} = j_{sa}^{i} - 1 \land j_{sa}^{ik} = j_{sa} - 1 \land j_{sa}^{s} < j_{sa}^{ik} - 1 \land$$

$$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i} \right\} \land$$

$$s \geq 5 \land \boldsymbol{s} = s + \mathbb{k} \land$$

$$\mathbb{k}_z: z = 3 \land \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\text{[illegible]}\, j_{ik}, j^{sa}, j_{\text{[illegible]}} = \sum_{\text{[illegible]}=1}^{\text{[illegible]}} \sum_{(j_s=1)}^{(\text{[illegible]})}$$

$$\sum_{j_{ik}=\text{[illegible]}k}^{\text{[illegible]}} \sum_{(j^{sa}=j_i+\text{[illegible]}_{sa}-s)}^{(\text{[illegible]})} \sum_{j_i=s}^{\boldsymbol{l_{sa}}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{\text{[illegible]}} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

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

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

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

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

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

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

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

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

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$j \text{[illegible]}, j_{ik}, j^{sa}, j_i \text{[illegible]} \sum_{k=1}^{\text{[illegible]}} \sum_{(j_s=1)}^{(\ \ )}$$

$$\sum_{j_{ik}=\text{[illegible]}}^{\text{[illegible]}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_i}+\text{[illegible]}s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

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

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

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

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

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

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

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$$S_{j_s\ ,j_{ik},j\ \ ,j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ \ )}$$

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

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

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

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

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

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

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

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$fz_{[illegible], j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{[illegible]} \sum_{(j_s=1)}^{[illegible]} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

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

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

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

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

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

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

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

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

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

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

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

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=j^{sa}+s-j_{sa}}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

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

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

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

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

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

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

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

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

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\Bbbk_1,j_{sa}^{ik},\Bbbk_2,j_{sa},\Bbbk_3,j_{sa}^{i}\right\}\wedge$

$s\geq5\wedge\boldsymbol{s}=s+\Bbbk\wedge$

$\Bbbk_z:z=3\wedge\Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3\Rightarrow$

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

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\ \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\ \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

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

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - \text{[illegible]})!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\text{[illegible]} - j_{sa}^{ik})!}{(\text{[illegible]} - j_{ik})! \cdot (\text{[illegible]} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\text{[illegible]} - \boldsymbol{l_i})!}{(\text{[illegible]}\, j_i - \boldsymbol{n} - \text{[illegible]})! \cdot (\boldsymbol{n} - j_i)!}$$

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

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + \text{[illegible]} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} \text{[illegible]} - j_{sa} \leq j_i \leq \text{[illegible]} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j^{ik}_{\text{[illegible]}} \text{[illegible]}\, j_{sa} - \text{[illegible]} \wedge \boldsymbol{l_i} + \text{[illegible]} - s = \text{[illegible]}\boldsymbol{a} \wedge$

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

$j_{sa} = j_{sa}^{i} - 1 \wedge j^{ik}_{\text{[illegible]}} = j_{sa} - 1 \wedge j_{\text{[illegible]}} \text{[illegible]} j_{sa}^{ik} - 1$

$\boldsymbol{s}: \left\{ j^{s}_{sa}, \text{[illegible]} \cdot, \Bbbk_{\text{[illegible]}}, j_{sa}^{ik}, \Bbbk_2, \text{[illegible]}, \Bbbk_3, j_{sa}^{i} \right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \text{[illegible]} \wedge$

$\Bbbk_z: z \text{[illegible]} 3 \wedge \Bbbk = \Bbbk_1 + \text{[illegible]}_2 + \Bbbk_3 \text{[illegible]}$

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

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

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-[illegible]_s-j_i)!}\cdot$$

$$\frac{(n_s-[illegible])!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l}_{[illegible]}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}[illegible])!\cdot([illegible]_k-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-[illegible]-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

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

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + [illegible]_{sa} - 1 \leq [illegible] \leq j^{s[illegible]} - j_{sa}^{ik} - [illegible]_a \wedge$

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

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > [illegible] \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{s[illegible]} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l}[illegible] + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n [illegible] I = \mathbb{k} > [illegible] \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j[illegible] = j_{sa} - [illegible] \wedge j_{s[illegible]}^{s} [illegible] j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{[illegible]}, [illegible], \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j[illegible], \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} [illegible] + \mathbb{k} \wedge$

$\mathbb{k}_z: [illegible] \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

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

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

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

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

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

$$\frac{[illegible]}{(n_s+j_i-\boldsymbol{n}-[illegible]-j_i)!}\cdot$$

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

$$\frac{(D-\boldsymbol{l_i})!}{([illegible]+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D [illegible] s - \boldsymbol{n} \wedge$

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

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

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

$D \geq \boldsymbol{n} [illegible] n \wedge I = \Bbbk > [illegible] \wedge$

$j_{sa} = j_{sa}^{i} - [illegible] \wedge j_{sa}^{ik} = j [illegible] - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{ [illegible], \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i} \} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = [illegible] + \Bbbk \wedge$

$\Bbbk_2 [illegible] \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

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

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_i}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}\text{[illegible]})}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\text{[illegible]}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\text{[illegible]})}$$

$$\frac{(n_i-n_{ik}\text{[illegible]}-1)!}{(j_{ik}-2)!\cdot(n_i\text{[illegible]}n_{ik}-j_{ik}\text{[illegible]}+1)!}\cdot$$

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

$$\frac{(\text{[illegible]}-n_s-\text{[illegible]})!}{(j_i-\text{[illegible]}-1)!\cdot\text{[illegible]}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(\text{[illegible]}-1)!}{(n_s\text{[illegible]}j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n$ [illegible] $= 1 \wedge$ [illegible] $\leq D + s - \boldsymbol{n} \wedge$

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

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

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

D [illegible] $\boldsymbol{n}$ [illegible] $\wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} -$ [illegible] $\wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\;,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\;\;)}$$

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

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

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

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

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

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

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

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

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z=3 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3 \Rightarrow$

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

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

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}-j_i+j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1)!}{(j_{ik}-1)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \ge \boldsymbol{n} < n \wedge 1 \le \boldsymbol{l_i} \le D+s-\boldsymbol{n} \wedge$

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

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

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

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

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

$\boldsymbol{s}:\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\mathbb{k}_3,j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

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

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_i}+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ \ )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

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

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

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

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

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

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

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

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

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1}^{\ldots} \sum_{(j_s=\ldots)}^{(\;)} \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{ik}+j_{sa}\ldots)}^{(\;)} \sum_{j_i=j^{s}\ldots s-j_{sa}}^{\ldots}
$$

$$
\sum_{\ldots+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}\ldots+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1\ldots)} \sum_{n_{\ldots}=\boldsymbol{n}+\mathbb{k}_3-j\ldots}^{n_{ik}+\ldots-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{\ldots j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(\ldots - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot
$$

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

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

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

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

$$
\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}
$$

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

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

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

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

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

$j_{sa} = j_{sa}^{i} - 1 \land j_{sa}^{ik} = j_{sa} - 1 \land j_{sa}^{s} < j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \land$

$s \geq 5 \land \boldsymbol{s} = s + \mathbb{k} \land$

$\mathbb{k}_z: z = 3 \land \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{[illegible]=1} \sum_{(j_s=1)}^{([illegible]}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik} [illegible] - j_{sa}^{ik})}^{(\ \ )} \sum_{j_i=j^{sa} [illegible] a}$$

$$\sum_{n_{[illegible]}+\mathbb{k}}^{n} \sum_{(n_{ik}=[illegible] j_{ik}+1)}^{[illegible] - j_{ik} - \mathbb{k}_1 + 1)}$$

$$\sum_{n_{sa}=\boldsymbol{n} [illegible] - j^{sa}+1}^{[illegible] k + j_{ik} - [illegible] \mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i [illegible] n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} [illegible] (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

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

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \land$

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

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

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

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

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

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k\text{[illegible]}} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{\text{[illegible]}=j^{sa}+j_{sa}^{ik}-\text{[illegible]}} \sum_{(j^{sa}=j_{sa})}^{\text{[illegible]}} \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}\text{[illegible]}}^{n} \sum_{\text{[illegible]}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{\text{[illegible]}-j_{ik}\text{[illegible]}+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}\text{[illegible]}_3-j^{sa}+1}^{n_{ik}+\text{[illegible]}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{\text{[illegible]}_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

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

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

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

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

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

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

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

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

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

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$f(\ldots j_{ik}, j^{sa}, j_i \ldots) = \sum_{\ldots=1} \sum_{(j_s=1)}^{(\ldots)}$$

$$\sum_{j_{ik}=j\ldots+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{ik}}+j_{sa}-j_{sa}^{ik})} \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

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

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

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

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

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

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

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

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

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

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

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

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \land$

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

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

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

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

$j_{sa} = j_{sa}^{i} - 1 \land j_{sa}^{ik} = j_{sa} - 1 \land j_{sa}^{s} < j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \land$

$s \geq 5 \land \boldsymbol{s} = s + \mathbb{k} \land$

$\mathbb{k}_z: z = 3 \land \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

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

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

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

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

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

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

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

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

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

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

$\boldsymbol{s}:\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\mathbb{k}_3,j_{sa}^{i}\}\wedge$

$s\geq 5\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

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

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_i}+j_{sa}-s)}\sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

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

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

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

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

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

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

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

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

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

$\boldsymbol{s}: \{j_s, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge S = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

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

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

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}\ \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

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

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

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

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

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

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

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

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

$s: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

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

$$ \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ \ )} \sum_{j_i=s}^{\boldsymbol{l_i}} $$

$$ \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\text{[illegible]}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} $$

$$ \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-\text{[illegible]}+1}^{n_{ik}+j_{ik}-j^{sa}} \sum_{(n_s=\boldsymbol{n}-j_i+\text{[illegible]})}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} $$

$$ \frac{(n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot $$

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

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

$$ \frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot $$

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

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

$$ \frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!} $$

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

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

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

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

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

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

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$ {}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1}^{(\ )} \sum_{(j_s=\text{[illegible]})}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}\text{[illegible]}-s)}^{(\ )} \sum_{\text{[illegible]}=s}^{\text{[illegible]}\boldsymbol{a}+s-j_{sa}} $$

$$ \sum_{\text{[illegible]}\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\text{[illegible]}+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1\text{[illegible]})} \sum_{\text{[illegible]}=\boldsymbol{n}+\mathbb{k}_3-\text{[illegible]}1}^{n_{ik}\text{[illegible]}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{\text{[illegible]}-j_i-\mathbb{k}_3)} $$

$$ \frac{(n_i\text{[illegible]}n_{ik} - \mathbb{k}_1 - 1)!}{\text{[illegible]} - 2)! \cdot (\text{[illegible]} - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot $$

$$ \frac{\text{[illegible]}_{ik} - n_{sa} - 1)!}{(\text{[illegible]} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot $$

$$ \frac{(n_{sa} - n_s - 1)!}{\text{[illegible]}(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot $$

$$ \frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot $$

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

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

$$ \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} $$

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

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

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

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

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

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

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

$\boldsymbol{l_i} - s + 1 > \boldsymbol{l_s} \wedge$

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

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

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

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s \text{[illegible]} j^{sa}, j_i} = \sum_{k=1} \sum_{(j \text{[illegible]} 1)}^{(\text{[illegible]})} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

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

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

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

$$\frac{\left(D-\boldsymbol{l_i}\right)!}{\left(D+j_i-\boldsymbol{n}-\boldsymbol{l_i}\right)!\cdot\left(\boldsymbol{n}-j_i\right)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

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

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

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

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

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

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

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\mathbb{k}_3,j_{sa}^{i}\right\}\wedge$

$s\geq 5\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

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

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{\left(n_i-n_{ik}-\mathbb{k}_1-1\right)!}{\left(j_{ik}-2\right)!\cdot\left(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1\right)!}\cdot$$

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

$$\frac{\left(n_{sa}-n_s-1\right)!}{\left(j_i-j^{sa}-1\right)!\cdot\left(n_{sa}+j^{sa}-n_s-j_i\right)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(\boldsymbol{l_i}+j_{sa}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i-s)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

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

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

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

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

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

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

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

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

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{()} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\ge \boldsymbol{n}<n\land \boldsymbol{l_s}=1\land \boldsymbol{l_s}\le D-\boldsymbol{n}+1\land$

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

$j_{ik}+j_{sa}-j_{sa}^{ik}\le j^{sa}\le j_i+j_{sa}-s\land j^{sa}+s-j_{sa}$ [illegible] $\le \boldsymbol{n}\land$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\land \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\land \boldsymbol{l_i}$ [illegible] $-s=\boldsymbol{l_{sa}}\land$

$D+s-\boldsymbol{n}<\boldsymbol{l_i}\le D+\boldsymbol{l_s}+s-\boldsymbol{n}-1\land$

$D\ge \boldsymbol{n}<n\land I=\Bbbk>0\land$

$j_{sa}=j_{sa}^{i}-1\land j_{sa}^{ik}=j_{sa}-1\land$ [illegible] $^{ik}-1\land$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\Bbbk_1,j_{sa}^{ik},\Bbbk_2,j_{sa},\right.$ [illegible] $\left.j_{sa}^{i}\right\}\land$

$s\ge 5\land \boldsymbol{s}=s+\Bbbk\land$

$\Bbbk_z: z$ [illegible] $3\land \Bbbk=\Bbbk_1$ [illegible] $\Bbbk_2+\Bbbk_3\Rightarrow$

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

$$\sum_{j_{ik}=j_{sa}^{ik}}\ \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ \ )}\ \sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - \text{[illegible]})!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} \text{[illegible]} - j_{sa})\text{[illegible]}}{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \text{[illegible]} - \boldsymbol{l_{ik}})! \cdot (\text{[illegible]} j_{sa})!} \cdot$$

$$\frac{\text{[illegible]} - \boldsymbol{l_i})!}{\text{[illegible]} j_i - \boldsymbol{n} - \text{[illegible]})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

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

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa}$ [illegible] $- j_{sa} \leq j_i \leq$ [illegible] $\wedge$

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

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

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

$j_{sa} =$ [illegible] $- 1 \wedge j_{sa}^{ik} =$ [illegible] $- 1 \wedge j_{sa}^{s} <$ [illegible] $\wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{s}$ [illegible] $\mathbb{k}_2, j_{sa},$ [illegible] $j_{sa}^{i}\} \wedge$

$s \geq$ [illegible] $\boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3$ [illegible] $\mathbb{k} = \mathbb{k}_1 + \mathbb{k}$[illegible] $+ \mathbb{k}_3 \Rightarrow$

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

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \; \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

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

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

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

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

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

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

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge s = s+\Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1+\Bbbk_2+\Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\;)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \; \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{n}+j_{sa}-s)} \; \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

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

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

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

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

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

$j_{sa} > j_{sa}^{s} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

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

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

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

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

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

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

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

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

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

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

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

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

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

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z : z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

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

$$ \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ \ )} \sum_{\text{[illegible]}=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}} $$

$$ \sum_{n_i=\boldsymbol{n}+\text{[illegible]}}^{n} \sum_{\text{[illegible]}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-\text{[illegible]}}^{(n_i-j_{ik}-\text{[illegible]}+1)} $$

$$ \sum_{n_{sa}=\text{[illegible]}-j^{sa}+1}^{\text{[illegible]}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{\text{[illegible]}+1)}^{\text{[illegible]}+j^{sa}-j_i-\Bbbk_3)} $$

$$ \frac{(n_i - n_{ik} \text{[illegible]} \Bbbk_1 - 1)!}{(j_{ik}-2)! \text{[illegible]} n_i - n_{ik} \text{[illegible]} j_{ik} - \Bbbk_1 + 1)!} \cdot $$

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

$$ \frac{(n_{sa} - n_s - 1)!}{\text{[illegible]} - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot $$

$$ \frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot $$

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

$$ \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} $$

D [illegible] $\boldsymbol{n} <$ [illegible] $\wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

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

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

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

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

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

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

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{[illegible]=1}^{[illegible]} \sum_{(j_s=1)}^{([illegible])}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j[illegible])}^{(\;)} \sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s[illegible]j_{sa}}^{[illegible]}$$

$$\sum_{n_i=[illegible]+\mathbb{k}}^{n} \sum_{(n_{ik}=[illegible]j_{ik}+1)}^{([illegible]-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}[illegible]-j^{sa}+1}^{[illegible]_{ik}+j_{ik}-j[illegible]\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i[illegible]n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik}[illegible](n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

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

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

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

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

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

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

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

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

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$_{fz}S_{j_s, j_{ik}, j^{sa}, \ldots}$ [illegible] $\sum \sum_{k \ldots =1)}^{(\ )}$ [illegible]

$\sum_{j_{ik} - \ldots a + j^{ik} - j_{sa}}$ $\sum_{(j^{s \ldots} + j_{sa} - \ldots)}^{(\ )}$ [illegible] $\sum_{\ldots - D - j_{sa}^{ik}}^{\boldsymbol{n}}$

$\sum_{n_{i} \ldots + \mathbb{k}}^{\boldsymbol{n}} \sum_{(n_{ik} = \boldsymbol{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)}$

$\sum_{n_{sa} = \boldsymbol{n} + \mathbb{k}_3 - j^{sa} + 1}^{n_{ik} + j_i \ldots j^{sa} - \mathbb{k}_2} \sum_{(n_s = \boldsymbol{n} - j_i + 1)}^{(n_{sa} + j^{sa} - j_i - \mathbb{k}_3)}$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{\ldots(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

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

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

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

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

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

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

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

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

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$\text{[illegible]} S_{\text{[illegible]} j_{ik}, j^{sa}, j_i} = \sum_{\text{[illegible]}=1} \sum_{(j_s=1)}^{(\text{[illegible]})}$$

$$\sum_{j_{ik}=\text{[illegible]}^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\text{[illegible]}\boldsymbol{n}+j_{sa}-D\text{[illegible]}s)}^{(\boldsymbol{n}+\text{[illegible]}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

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

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

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

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

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

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

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

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

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, \dots, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{\dots = j^{sa} + j_{sa} - \dots} \sum_{(j^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{(\dots + j_{sa} - s)} \sum_{j_i = j^{sa} + s - j_{sa}}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{ik} = \boldsymbol{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)}$$

$$\sum_{n_{sa} = \boldsymbol{n} + \mathbb{k}_3 - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2} \sum_{(n_s = \boldsymbol{n} - j_i + 1)}^{(n_{sa} + j^{sa} - j_i - \mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

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

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

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

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

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

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

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

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik}$ [illegible] $1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$ [illegible]

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

$$\sum_{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{\left(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik}\right)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - \text{[illegible]}\right)!} \cdot$$

$$\frac{(D - \text{[illegible]})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

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

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \text{ [illegible] } \boldsymbol{n} \wedge$

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

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

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

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge \text{[illegible]}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \text{[illegible]}, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z \text{ [illegible] } 3 \wedge \mathbb{k} = \mathbb{k}_1 \text{ [illegible] } \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

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

$$\sum_{j_{ik}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}^{ik}-D-s}^{\boldsymbol{n}+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\text{[illegible]} - j_{sa}^{ik} \text{[illegible]})!}{(\text{[illegible]} - j_{ik})! \cdot (\text{[illegible]} j_{sa}^{ik})!} \cdot$$

$$\frac{(\text{[illegible]} - \boldsymbol{l_i})!}{(\text{[illegible]} j_i - \boldsymbol{n} - \text{[illegible]})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_s \text{[illegible]} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} \text{[illegible]} - j_{sa} \leq j_i \leq \text{[illegible]} \wedge$

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

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + \text{[illegible]} - \boldsymbol{n} - 1 \wedge$

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

$j_{sa} = \text{[illegible]} - 1 \wedge j_{sa}^{ik} = \text{[illegible]} - 1 \wedge j_{sa}^{s} < \text{[illegible]} \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa} \text{[illegible]} \mathbb{k}_2, j_{sa}, \text{[illegible]} j_{sa}^{i}\} \wedge$

$s \geq \text{[illegible]} \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \text{[illegible]} \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

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

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{n}+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

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

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

$$\frac{(n_s-[illegible])!}{(n_s+j_i-[illegible]\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-[illegible])!\cdot([illegible]-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-[illegible]-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

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

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

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

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

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

$j_{sa} = [illegible]-1 \wedge j_{sa}^{ik} = [illegible]-1 \wedge j_{sa} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}\colon \{j_{sa}^{s},\cdots,[illegible],j_{sa}^{ik},\Bbbk_2,j_{sa},\Bbbk_3,j_{sa}^{i}\} \wedge$

$s \geq [illegible] \wedge [illegible] = s+\Bbbk \wedge$

$\Bbbk_z\colon z = 3 \wedge \Bbbk = \Bbbk_1+\Bbbk_2+\Bbbk_3 \Rightarrow$

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

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{n}+j_{sa}^{ik}-s}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}\ \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

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

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

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

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + j_{sa} + s - \boldsymbol{n} - 1 \wedge$

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

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

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s > 4 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

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

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}\text{[illegible]})}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\text{[illegible]}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}\text{[illegible]})}$$

$$\frac{(n_i-n_{ik}\text{[illegible]}-1)!}{(j_{ik}-2)!\cdot(n_i\text{[illegible]}n_{ik}-j_{ik}\text{[illegible]}+1)!}\cdot$$

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

$$\frac{(\text{[illegible]}-n_s-\text{[illegible]})!}{(j_i-\text{[illegible]}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(\text{[illegible]}-1)!}{(n_s\text{[illegible]}j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{s\text{[illegible]}}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \text{[illegible]} < n \wedge \boldsymbol{l_s} = 1 \text{[illegible]} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq \text{[illegible]} - j_{sa}^{ik} + 1 \text{[illegible]} s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + \text{[illegible]} - j_{sa}^{ik} \leq j^{\text{[illegible]}} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \text{[illegible]} > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\text{[illegible]} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

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

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

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z : z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

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

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}^{(\boldsymbol{l_{ik}}+j_{sa}-j_{sa}^{ik})} \sum_{n_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{(n_{ik}-j^{sa}-\Bbbk_2+1)} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

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

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

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

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

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

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

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

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

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

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, [illegible]} = \sum_{k [illegible]} \sum_{[illegible]=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}} \sum_{[illegible]=j_{ik}+j_{sa}[illegible]}^{(\ )} \sum_{\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=[illegible]+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{i}[illegible]j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

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

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

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

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

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

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

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

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

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

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

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

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

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

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

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

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

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

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

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

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

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

$\boldsymbol{s}\colon \left\{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z\colon z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

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

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

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

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \ge \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \le D - \boldsymbol{n} + 1 \wedge$

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

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

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

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

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

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

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$\boldsymbol{s} = 5 \wedge \boldsymbol{s} = 2 + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

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

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-[illegible])!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-[illegible])!\cdot([illegible]-j_{sa}^{ik})!}\cdot$$

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

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \land$

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

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

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

$D + [illegible] - \boldsymbol{n} < \boldsymbol{l_i} \leq D [illegible] \boldsymbol{l_s} + s - [illegible] - 1 \land$

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

$j_{sa} = j_{sa}^{i} - 1 \land [illegible]_{sa} - 1 \land j_{sa}^{s} < j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, [illegible], j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \land$

$[illegible] \geq 5 \land [illegible]\ s + \mathbb{k} \land$

$\mathbb{k}_z: z = 3 \land \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

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

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

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

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \ge \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_{ik}} \le D - \boldsymbol{n} + 1 \wedge$

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

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

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

$\boldsymbol{l_{ik}} < \boldsymbol{l_i} \le D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

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

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

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1}^{(\ )} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \sum_{n_i=\boldsymbol{n}+\mathbb{k}-j_i+1}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} $$

$$ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot $$

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

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

$$ \frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot $$

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

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

$$ \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} $$

$((D > \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

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

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

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

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

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

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

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

$\boldsymbol{l_i} - s + 1 > \boldsymbol{l_s} \wedge$

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

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

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

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$f\,[\text{illegible}]_s, j_{ik}, j^{sa}, j_i = \sum_{k=1}^{[\text{illegible}]} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{[\text{illegible}]} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

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

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

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - [illegible])!} \cdot$$

$$\frac{(D - [illegible])!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

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

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

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq$ [illegible] $\wedge$

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

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

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik}$ [illegible] $\wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3,$ [illegible] $\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$ [illegible]

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}^{(\ )}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j^{ik}}\sum_{(j^{sa}=j_{sa}[illegible])}^{(\ )}\sum_{j_i=s+1}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n[illegible]}\sum_{(n_{ik}[illegible]+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}[illegible])}$$

$$\sum_{[illegible]=\boldsymbol{n}+\mathbb{k}_3[illegible]+1}^{n[illegible]j_{ik}-[illegible]}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}[illegible]^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n[illegible]-n_{ik}-[illegible]-1)!}{(j_{ik}-2)!\cdot([illegible]-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n[illegible]-n_{sa}-1)!}{([illegible]^{a}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{([illegible]_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(\boldsymbol{l_i}+j_{sa}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n[illegible]\boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

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

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

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

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

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

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

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

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +$$

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

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

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

$$\frac{(n_{s}-1)!}{(n_{s}+j_{i}-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_{i})!}\cdot$$

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

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

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

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

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

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

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

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

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z : z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}\ \sum_{j_{ik}=j_{sa}^{ik}}\ \sum_{(j^{sa}=j_{sa})}^{(\ )}\ \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

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

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} \text{[illegible]})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot \text{[illegible]} - s)!}\Bigg)$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}\text{[illegible]}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\text{[illegible]}}^{\boldsymbol{l_i}} \right.$$

$$\sum_{n_i=\text{[illegible]}} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2 \text{[illegible]} j_{ik}+1)}^{(\text{[illegible]} j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\text{[illegible]}-j^{sa}+1}^{\text{[illegible]}+j_{ik}-j^{s\text{[illegible]}}} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n\text{[illegible]} n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

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

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

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

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

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

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

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

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

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

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{( )} \sum_{j_{ik}=\ldots} \sum_{(j^{sa}=j_{sa})} \sum_{j_i=s\ldots} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\ldots}^{n} \sum_{\ldots_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}\ldots-j^{sa}+1}^{n_{ik}\ldots-j^{sa}-\Bbbk_2\ldots} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{\ldots n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(\ldots j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +$$

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

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - \text{[illegible]}_s - j_i)!}$$

$$\frac{(n_s - \text{[illegible]})!}{(n_s + j_i \text{[illegible]} \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} \text{[illegible]})!} \cdot$$

$$\frac{(\boldsymbol{l}_{\text{[illegible]}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} \text{[illegible]})! \cdot \text{[illegible]} - j_{sa}^{ik})!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{\text{[illegible]} + j_i - \text{[illegible]} \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} \right)$$

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

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s \text{[illegible]}_{sa} - 1 \leq \text{[illegible]} \leq j^{s\text{[illegible]}} j^{ik} \text{[illegible]}_{a} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + \text{[illegible]} - s \wedge j^{sa} + \text{[illegible]} j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \text{[illegible]} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} \text{[illegible]} \boldsymbol{l_{ik}} \wedge \boldsymbol{l} \text{[illegible]} - j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \text{[illegible]} I = \mathbb{k} > \text{[illegible]} \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{\text{[illegible]}} = j_{sa} - \text{[illegible]} \wedge j_{s\text{[illegible]}}^{s} \text{[illegible]} j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s} \text{[illegible]}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j \text{[illegible]} \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = \text{[illegible]} + \mathbb{k} \wedge$

$\mathbb{k}_z \text{[illegible]} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}.$$

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

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}.$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}.$$

$$\left.\frac{(D-[illegible])!}{(D[illegible]s-[illegible]\boldsymbol{l}[illegible])!\cdot([illegible]\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}^{[illegible]} \sum_{(j_s=1)}^{[illegible]} \sum_{j_{ik}=[illegible]+j_{sa}^{ik}-j_{sa}}^{[illegible]} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=s+1}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{[illegible]} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}.$$

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

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}.$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}.$$

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

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

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

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

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

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

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

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

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

$\boldsymbol{s}\colon \left\{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z\colon z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,\ldots,j^{sa},j_i} = \left(\sum_{k=1}\sum_{(j\ldots=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}\ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

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

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

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

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

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

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

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

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

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

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

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

$\boldsymbol{l_i} - s + 1 > \boldsymbol{l_s} \wedge$

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

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

$j_{sa} = j_{sa}^{i} - 1 \land j_{sa}^{ik} = j_{sa} - 1 \land j_{sa}^{s} < j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}\colon \left\{ j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i} \right\} \land$

$s \geq 5 \land \boldsymbol{s} = s + \Bbbk \land$

$\Bbbk_z\colon z = 3 \land \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=s}^{\boldsymbol{l_i}} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\Bbbk_2)} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot
$$

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

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

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

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

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$\sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)!\cdot(\mathbf{n}-j_i)!}\cdot$$

$$\frac{(\mathbf{l_{ik}}-j_{sa}^{ik})!}{(\mathbf{l_{ik}}-\mathbf{l_s})!\cdot(\mathbf{l_s}-j_{sa}^{ik})!}\cdot$$

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

$$\frac{(\mathbf{l_i}+j_{sa}-\mathbf{l_{sa}}-s)!}{(j^{sa}+\mathbf{l_i}-j_i-\mathbf{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\mathbf{l_i})!}{(D+j_i-\mathbf{n}-\mathbf{l_i})!\cdot(\mathbf{n}-j_i)!}\right)$$

$D \geq \mathbf{n} < n \wedge \mathbf{l_s} = s \wedge \mathbf{l_i} \leq D + s - \mathbf{n} \wedge$

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

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

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

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

$j_{sa}^{ik} - j_{sa}^{s} > 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\mathbf{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}\ \sum_{j_{ik}=j_{sa}^{ik}}\ \sum_{(j^{sa}=j_{sa})}^{(\ )}\ \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(\ldots-\boldsymbol{l_i})!}{(D\ldots s-\boldsymbol{n}-\ldots_i)!\cdot(\boldsymbol{n}-s)!}\right)+$$

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

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

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

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

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

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

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

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

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\mathbb{k}_3,j_{sa}^{i}\right\}\wedge$

$s\geq5\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s\ [illegible]\ j^{sa},j_i}\ \left(\sum_{k=1}\ \sum_{(j_s=1)}\ \sum_{j_{ik}=j_{sa}^{ik}}\ \sum_{(j^{sa}=j_{sa})}^{(\ )}\ \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

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

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3+j_{ik}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}+j^{sa}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

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

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

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

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

[illegible] $n \wedge I = \mathbb{k} > 0 \wedge$

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

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\Bbbk_z : z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot
$$

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

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

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

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

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot
$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

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

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\ge\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\le D+s-\boldsymbol{n}\wedge$

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

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

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

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

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

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\mathbb{k}_3,j_{sa}^{i}\right\}\wedge$

$s\ge 5\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}^{(\ )}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)$$

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

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+j_i-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+j_i-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

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

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

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

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

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

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

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i} \right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z : z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

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

$$ \sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} $$

$$ \sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)} $$

$$ \frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot $$

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

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

$$ \frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot $$

$$ \left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) + $$

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

$$ \sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} $$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

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

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \land$

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

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

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

$D + j_i - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - j_s - 1 \land$

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

$j_{sa} = j_{sa}^{i} - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} < j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \land$

$s \geq 5 \land \boldsymbol{s} = s + \Bbbk \land$

$\Bbbk_z: z = 3 \land \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(\cdots-\boldsymbol{l_i})!}{(D\cdots s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(\boldsymbol{l_i}+j_{sa}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

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

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

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

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

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

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

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\Bbbk_1,j_{sa}^{ik},\Bbbk_2,j_{sa},\Bbbk_3,j_{sa}^{i}\right\}\wedge$

$s\geq 5\wedge\boldsymbol{s}=s+\Bbbk\wedge$

$\Bbbk_z:z=3\wedge\Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\Bigg)+$$

$$\Bigg(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\Bigg)$$

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

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

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

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

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

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

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

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z : z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot
$$

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

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

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

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

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot
$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

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

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

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

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

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

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

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

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

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = 5+\Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1+\Bbbk_2+\Bbbk_3 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=\ldots+j_{sa}-s)}\sum_{j_i=\boldsymbol{l_i}+\ldots}\right.$$

$$\sum_{n_i=\ldots\mathbb{k}}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2\ldots j_{ik}+1)}^{(\ldots j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\ldots-j^{sa}+1}^{\ldots+j_{ik}-j^{s\ldots}}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_{\ldots}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

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

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

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

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

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

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

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=\text{[illegible]}} \sum_{(j^{sa}=j_{sa})}^{\text{[illegible]})} \sum_{j_i=\text{[illegible]}} \right. $$

$$ \sum_{n_i=\boldsymbol{n}+\text{[illegible]}}^{n} \sum_{\text{[illegible]}_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-\text{[illegible]}\mathbb{k}_1+1)} $$

$$ \sum_{n_{sa}=\boldsymbol{n}+\text{[illegible]}-j^{sa}+1}^{n_{ik}\text{[illegible]}-j^{sa}-\mathbb{k}_2\text{[illegible]}} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{\text{[illegible]}n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} $$

$$ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{\text{[illegible]}_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot $$

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

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

$$ \frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot $$

$$ \left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) + $$

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

$$ \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} $$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\;\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

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

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

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

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

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

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

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

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

$\boldsymbol{s}\colon \{j_{sa}^{s},\cdots,j_{sa}^{ik},\Bbbk_2,j_{sa},\Bbbk_3,j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s+\Bbbk \wedge$

$\Bbbk_z\colon z = 3 \wedge \Bbbk = \Bbbk_1+\Bbbk_2+\Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}\;\sum_{(j_s=1)}^{(\;)}\;\sum_{j_{ik}=j_{sa}^{ik}}\;\sum_{(j^{sa}=j_{sa})}^{(\;)}\;\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(\boldsymbol{n}-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1} \sum_{(\ldots=1)}^{(\ldots)} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

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

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

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

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

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

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

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

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

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

$\boldsymbol{l_i} - s + 1 > \boldsymbol{l_s} \wedge$

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

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

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

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \Bbbk_3, j_i\}$

$s \geq 5 \wedge \boldsymbol{n} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}^{(\ )}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\cdots)!}{(D\cdots s-\cdots\boldsymbol{l}_{\cdots})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k\cdots}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}\cdots}^{\boldsymbol{l_{ik}}}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})}\sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

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

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

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

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

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

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

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

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

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

$\boldsymbol{s}:\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\mathbb{k}_3,j_{sa}^{i}\}\wedge$

$s\geq5\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)}\sum_{j_i=j^{sa}+s-j_{sa}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge s \leq D - \boldsymbol{n} + 1 \wedge$

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

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

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

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

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

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

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$
{}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot
$$

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

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

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\frac{(\mathbf{l_{ik}} - j_{sa}^{ik})!}{(\mathbf{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\left.\frac{(D - \mathbf{l_i})!}{(D + s - \mathbf{n} - \mathbf{l_i})! \cdot (\mathbf{n} - j_i)!}\right)$$

$D \geq \mathbf{n} < n \wedge \mathbf{l_s} = 1 \wedge \mathbf{l_s} \leq D - \mathbf{n} + 1 \wedge$

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

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

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

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

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

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

$\mathbf{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{()} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{()} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - \text{[illegible]})!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left.\frac{(\text{[illegible]})!}{(D + s \text{[illegible]} \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\text{[illegible]} s)!}\right) +$$

$$\left(\sum_{\text{[illegible]}=1} \sum_{(j_s=1)}^{(\text{[illegible]})}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{n}+j_{sa}^{ik}} \sum_{(j^{sa}=\text{[illegible]}_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

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

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

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

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

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

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

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

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

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +$$

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

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

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

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_{ik}}\leq D-\boldsymbol{n}+1\wedge$

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

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

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

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

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

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

$\boldsymbol{s}\colon\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\mathbb{k}_3,j_{sa}^{i}\right\}\wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z : z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot
$$

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

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

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - [illegible])!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{([illegible] - j_{sa}^{ik})!}{([illegible] - j_{ik})! \cdot ([illegible] - j_{sa}^{ik})!} \cdot$$

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

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

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

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

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - [illegible] = \boldsymbol{l_{ik}} \wedge \boldsymbol{l}[illegible] j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + [illegible] \boldsymbol{n} < \boldsymbol{l_i} \leq [illegible] \boldsymbol{l_s} + s - \boldsymbol{n} - [illegible]$

$D [illegible] \boldsymbol{n} < n \wedge [illegible] \mathbb{k} > 0 [illegible]$

$j_{sa} [illegible] j_{sa}^{i} - 1 \wedge j_{sa}^{ik} [illegible] - 1 [illegible] < j_{sa}^{ik} - 1 \wedge$

$[illegible] \{j_{sa}^{s}, \ldots [illegible], j_{sa}^{ik}, \mathbb{k}_2, j_{s}[illegible], \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 [illegible] \boldsymbol{s} = s$

$\mathbb{k}_z \colon z = 3 [illegible] \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{s[illegible]}+j^{sa}-[illegible]_s-j_i)!}\cdot$$

$$\frac{(n_s-[illegible])}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-[illegible]_i)!}\cdot$$

$$\left.\frac{(D-[illegible])!}{(D[illegible]s-[illegible]\boldsymbol{l}_i)!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l}_i[illegible]+j_{sa}^{ik}-D-s}^{\boldsymbol{n}+j[illegible]s}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{([illegible])}\ \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

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

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

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

$D+j_{sa}-\boldsymbol{n}<\boldsymbol{l_{sa}}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1\wedge$

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

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

$\boldsymbol{s}:\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\mathbb{k}_3,j_{sa}^{i}\}\wedge$

$s\geq 5\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{()}\right.$$

$$\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{()}\sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_i+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

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

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

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

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

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

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

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right. $$

$$ \sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} $$

$$ \sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\Bbbk_2)} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)} $$

$$ \frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot $$

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

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

$$ \frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot $$

$$ \left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) + $$

$$ \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \right. $$

$$ \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}} $$

$$ \sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} $$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-[illegible]_s-j_i)!}\cdot$$

$$\frac{(n_s-[illegible])!}{(n_s+j_i[illegible]\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l}_{i[illegible]}-j_{sa}^{ik})!}{(\boldsymbol{l}_{ik}[illegible])!\cdot[illegible]-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l}_i)!}{[illegible]+j_i-[illegible]-\boldsymbol{l}_i)!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l}_s = 1 \wedge \boldsymbol{l}_s \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s [illegible] j_{sa}^{[illegible]} - 1 \leq [illegible] \leq j^{s[illegible]} - j^{ik} [illegible]_{sa} \wedge$

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

$\boldsymbol{l}_{ik} - j_{sa}^{ik} + 1 > [illegible] \wedge \boldsymbol{l}_{sa} + j_{sa}^{ik} - j_{s[illegible]} > \boldsymbol{l}_{ik} \wedge [illegible] + j_{sa} - s = \boldsymbol{l}_{sa} \wedge$

$D + j_{sa} - [illegible] \boldsymbol{l}_{sa} \leq [illegible] + \boldsymbol{l}_s + j_{sa} - \boldsymbol{n} [illegible] \wedge$

$D \geq \boldsymbol{n} < n \wedge I - [illegible] > 0 \wedge$

$j_{sa} = [illegible] - 1 \wedge j_{sa}^{ik} = [illegible] - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, [illegible] j_{sa}^{ik}, \mathbb{k}_2, j_{s}[illegible] \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq [illegible] = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge [illegible] = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\;)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\;)} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-[illegible]_s-j_i)!}\cdot$$

$$\frac{(n_s-[illegible])}{(n_s+j_i[illegible]\boldsymbol{n}-1)!\cdot(\boldsymbol{n}[illegible])!}\cdot$$

$$\frac{(D-[illegible])!}{([illegible]s-[illegible]\boldsymbol{L})!\cdot[illegible]\boldsymbol{n}-s)!}\Bigg)+$$

$$\Bigg(\sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{i[illegible]}k+\boldsymbol{n}-D}\ \sum_{(j^{sa}=j_i+j_{sa}-s)}^{([illegible]}\ \sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

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

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

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

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

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

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

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

$j_{sa} = j^{i}_{sa} - 1 \wedge j^{ik}_{sa} = j_{sa} - 1 \wedge j^{s}_{sa} < j_s - 1 \wedge$

$\boldsymbol{s}: \left\{j^{s}_{sa}, \cdots, \mathbb{k}_1, j^{ik}_{sa}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j^{i}_{sa}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$fz^{S}_{j_{ik},j^{sa},j_i} = \left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j^{ik}_{sa}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=[illegible])}^{(\;)}\right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\;\sum_{(j^{sa}=\boldsymbol{l_{sa}}+[illegible])}^{(\boldsymbol{n}+j_{sa}-s)}\;\sum_{[illegible]\,j^{sa}[illegible]-j_{sa}}$$

$$\sum_{n_i[illegible]}^{n}\;\sum_{(n_{ik}=\boldsymbol{n}+[illegible]+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}[illegible]+\mathbb{k}_3-j^{sa}[illegible]}^{n_{ik}+[illegible]\,j^{sa}-\mathbb{k}_2}\;\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}[illegible]j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{([illegible]-2)!\cdot([illegible]-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$[illegible] > \boldsymbol{n}\,[illegible] \wedge \boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

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

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

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

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

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

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

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$ {}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right. $$

$$ \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} $$

$$ \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} $$

$$ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot $$

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

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

$$ \frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot $$

$$ \left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) + $$

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

$$ \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} $$

$$\sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)!\cdot(\mathbf{n}-j_i)!}\cdot$$

$$\frac{(\mathbf{l_{ik}}-j_{sa}^{ik})!}{(\mathbf{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

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

$$\left.\frac{(D-\mathbf{l_i})!}{(D+j_i-\mathbf{n}-\mathbf{l_i})!\cdot(\mathbf{n}-j_i)!}\right)$$

$D \geq \mathbf{n} < n \wedge \mathbf{l_s} = 1 \wedge \mathbf{l_s} \leq D - \mathbf{n} + 1 \wedge$

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

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

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

$D + j_{sa} - \mathbf{n} < \mathbf{l_{sa}} \leq D + \mathbf{l_s} + j_{sa} - \mathbf{n} - 1 \wedge$

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

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

$\mathbf{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge S = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}\ \sum_{j_{ik}=j_{sa}^{ik}}\ \sum_{(j^{sa}=j_{sa})}^{(\ )}\ \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{n}+j_s^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

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

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

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

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

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

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

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$fz\text{-}\ldots_{j^{sa},j_i} = \left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=\text{[illegible]}}^{(\ )}\right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\;\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\;\sum_{j_i=\text{[illegible]}+s-\text{[illegible]}-j_{sa}^{ik}}$$

$$\sum_{n_i=\text{[illegible]}}^{n}\;\sum_{(n_{ik}=\boldsymbol{n}+\text{[illegible]}+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\text{[illegible]}+\mathbb{k}_3-j^{sa}\text{[illegible]}}^{n_{ik}+j\text{[illegible]}j^{sa}-\mathbb{k}_2}\;\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}\text{[illegible]}j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-\text{[illegible]}n_{ik}-\mathbb{k}_1-1)!}{(\text{[illegible]}-2)!\cdot(\text{[illegible]}-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

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

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

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

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

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

[illegible] $> \boldsymbol{n}$ [illegible] $\wedge\, \boldsymbol{l_s}=1 \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \,\wedge$

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

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

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

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

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

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

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

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

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

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

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

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa} - j_{sa}^{ik} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} > D - \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa} \wedge$

$D \geq \boldsymbol{n} < n \wedge \mathbb{I} = \mathbb{k} > 0 \wedge$

$j_{sa}^{i} = j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\;)} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(\boldsymbol{l_i}+j_{sa}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge I = 1 \wedge \boldsymbol{l_i} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_i} - s + 1 > 0 \wedge$

$\boldsymbol{l_i} > D - \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j^{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$ {}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \right. $$

$$ \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}} $$

$$ \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\text{[illegible]}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} $$

$$ \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-\text{[illegible]}1}^{n_{ik}+j_{ik}-j^{sa}\text{[illegible]}} \sum_{(n_s=\boldsymbol{n}-j_i+\text{[illegible]})}^{(n_{sa}+j^{s\text{[illegible]}}-j_i-\mathbb{k}_3)} $$

$$ \frac{\text{[illegible]}n_{ik}-\mathbb{k}_1\text{[illegible]}1)!}{(j_{ik}-2)!\text{[illegible]}(n_i-\text{[illegible]}j_{ik}\text{[illegible]}\mathbb{k}_1+1)!} \cdot $$

$$ \frac{(n_{ik}-\text{[illegible]}a-1)!}{(j^{sa}-j_{ik}-\text{[illegible]})!\cdot(n_{ik}\text{[illegible]}j_{ik}-n_{sa}-j^{sa})!} \cdot $$

$$ \frac{(\text{[illegible]}-n_s-1)!}{(\text{[illegible]}-j^{sa}-1)\text{[illegible]}(n_{sa}+j^{sa}-n_s-j_i)!} \cdot $$

$$ \frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!} \cdot $$

$$ \frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!} \cdot $$

$$ \frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!} \cdot $$

$$ \frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!} \cdot $$

$$ \left. \frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!} \right) $$

$\text{[illegible]} > \boldsymbol{n}\ \text{[illegible]} \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_{ik}} > D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,[illegible]j_{ik},j^{sa},j_i} \left(\sum_{k[illegible]}^{[illegible]} \sum_{[illegible]=1)}^{(\ )} \right.$$

$$\sum_{j_{ik}=[illegible]+\boldsymbol{n}-D}^{\boldsymbol{n}+j_{sa}^{ik}-s} \sum_{(j[illegible]_{ik}+j_{sa}-j_{sa}[illegible]}^{(\ )} \sum_{[illegible]+s-j_{sa}}$$

$$\sum_{n_i[illegible]+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j[illegible]j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} \right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \land$

$\boldsymbol{l_i} > D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \land$

$D \geq \boldsymbol{n} < n \land I = \mathbb{k} > 0 \land$

$j_{sa} = j_{sa}^{i} - 1 \land j_{sa}^{ik} = j_{sa} - 1 \land j_{sa}^{s} < j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \land$

$s \geq 5 \land \boldsymbol{s} = s + \mathbb{k} \land$

$\mathbb{k}_z: z = 3 \land \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$\text{[illegible]}_{\text{[illegible]}, j^{sa}, j_i} \Bigg(\sum_{\text{[illegible]}=1} \sum_{(j_s=1)}^{(\text{[illegible]}}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}\text{[illegible]}D)}^{(\text{[illegible]}j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{\text{[illegible]}} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} \Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{\mathbb{k}_z}S_{j_s,j_{ik},j\ldots}^{[illegible]} = \sum_{k=1}^{[illegible]} \sum_{(j_s=[illegible])}^{([illegible])} \sum_{j_{ik}=j_{sa}^{ik}}^{[illegible]} \sum_{(j^{sa}=j_{sa})}^{([illegible])} \sum_{j_i=s}^{[illegible]}$$

$$\sum_{n_i=[illegible]\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{([illegible]-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{[illegible]_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{()} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()} \sum_{j_i=j^{sa}+s-j_{sa}}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(\boldsymbol{l_i} + j_{sa} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i} \right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1}^{(\,)} \sum_{(j_s=1)}^{(\,)} \sum_{j_{ik}=j_{sa}^{ik}}^{(\,)} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(j_i+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{\boldsymbol{l_i}} \sum_{n_i=\boldsymbol{n}+\Bbbk-j_i+1}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}+1)} \sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_{s}, j_{ik}, j^{sa}, j_i}[\text{illegible}] = \sum_{k[\text{illegible}]}\sum_{[\text{illegible}]=1)}^{(\ )}$$

$$\sum_{j_{ik}[\text{illegible}]}\sum_{(j^{sa}[\text{illegible}])}\sum_{j_i=s}^{\boldsymbol{l_{sa}}+s-j_{sa}[\text{illegible}]}$$

$$\sum_{n_i[\text{illegible}]+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_i[\text{illegible}]j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1}^{[illegible]} \sum_{(j_s=1)}^{(\;)}
\sum_{j_{ik}=j_{sa}^{ik}}^{[illegible]} \sum_{(j^{sa}=j_{sa})}^{([illegible]-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{[illegible]}
\sum_{n_i=[illegible]+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{([illegible]-j_{ik}-\Bbbk_1+1)}
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{[illegible]+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot
$$

$$
\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} - j_{sa})!} \cdot
$$

$$
\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$$

$$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$$

$$\boldsymbol{s}: \left\{ j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$$

$$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$[illegible]\, j_{ik}, j^{sa}, j_i [illegible] = \sum_{[illegible]=1} \sum_{(j_s=1)}^{([illegible])}$$

$$\sum_{j_{ik} [illegible] j_{sa}^{ik}} \sum_{(j^{sa} = j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i = j^{sa} + s - j_{sa}}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}} \sum_{(n_{ik} = \boldsymbol{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)}$$

$$\sum_{n_{sa} = \boldsymbol{n} + \mathbb{k}_3 - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2} \sum_{(n_s = \boldsymbol{n} - j_i + 1)}^{(n_{sa} + j^{sa} - j_i - \mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$ {}^{fz}S_{j_s,j_{ik},j^{[illegible]}}^{[illegible]} = \sum_{k=1}^{[illegible]} \sum_{(j_s=[illegible])}^{[illegible]} \sum_{j_{ik}=j_{sa}^{ik}}^{[illegible]} \sum_{(j^{sa}=j_{sa})}^{([illegible]\boldsymbol{l_{sa}})} \sum_{j_i=s}^{\boldsymbol{l_i}} $$

$$ \sum_{n_i=[illegible]+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{([illegible]-j_{ik}-\Bbbk_1+1)} $$

$$ \sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{[illegible]_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)} $$

$$ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot $$

$$ \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot $$

$$ \frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot $$

$$ \frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} - j_{sa})!} \cdot $$

$$ \frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot $$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=j^{sa}+s-j_{sa}}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\Bbbk>0\wedge$

$j_{sa}=j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\Bbbk_1,j_{sa}^{ik},\cdots,\Bbbk_2,j_{sa},\Bbbk_3,j_{sa}^{i}\right\}\wedge$

$s\geq 5\wedge\boldsymbol{s}=s+\Bbbk\wedge$

$\Bbbk_z:z=3\wedge\Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3\Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\ \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\ \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j^{ik}_{sa}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j^{ik}_{sa}\right)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j^{ik}_{sa} + 1 \wedge j_s + j^{ik}_{sa} - 1 \leq j_{ik} \leq j^{sa} + j^{ik}_{sa} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j^{ik}_{sa} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j^{ik}_{sa} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j^{ik}_{sa} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j^{i}_{sa} - 1 \wedge j^{ik}_{sa} < j_{sa} - 1 \wedge j^{s}_{sa} = j^{ik}_{sa} - 1 \wedge$

$\boldsymbol{s}: \left\{j^{s}_{sa}, \Bbbk_1, j^{ik}_{sa}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j^{i}_{sa}\right\}$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j^{ik}_{sa}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=s}^{\boldsymbol{l_{sa}}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\Bbbk>0\wedge$

$j_{sa}=j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\Bbbk_1,j_{sa}^{ik},\cdots,\Bbbk_2,j_{sa},\Bbbk_3,j_{sa}^{i}\}\wedge$

$s\geq5\wedge\boldsymbol{s}=s+\Bbbk\wedge$

$\Bbbk\wedge z=3\wedge\Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3\Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\ \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\ \sum_{j_i=s}^{\boldsymbol{l_{ik}}+s-j_{sa}^{ik}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(D - j_{sa}^{ik})!}{(D - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_i}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_i}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-\boldsymbol{l_i})!\cdot(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_i} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 1,2,3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik} [illegible] -j^{s[illegible]}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa} [illegible] -1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa} [illegible] j^{sa}-n_s- [illegible])!}\cdot$$

$$\frac{[illegible]}{(n_s [illegible] j_i-\boldsymbol{n} [illegible] -j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{([illegible]+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D [illegible] s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{s[illegible]}^{i[illegible]} + 1 \wedge j_s + j_{sa}^{ik} - [illegible] \leq j_{ik} \leq [illegible]^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{i[illegible]} + j_{sa} - [illegible] \leq j^{sa} \leq [illegible] + j_{sa} - s \wedge j^{[illegible]} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} [illegible] \boldsymbol{l_{sa}} + j_{s[illegible]} - j [illegible] \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq [illegible] n \wedge I = \mathbb{k} > [illegible] \wedge$

$j_{sa} = j_{sa}^{i} - [illegible] j_{sa}^{ik} < j [illegible] - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{ [illegible], j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i} \} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = [illegible] + \mathbb{k} \wedge$

$\mathbb{k}_2 [illegible] \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\;,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\;\;)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa})}^{(\mathbf{l_{ik}}+j_{sa}-j_{sa}^{ik})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\Bbbk}^{n} \sum_{(n_{ik}=\mathbf{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\mathbf{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\mathbf{n}+j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s - j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\frac{(\mathbf{l_{ik}} - j_{sa}^{ik})!}{(\mathbf{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - \mathbf{l_i})!}{(D + j_i - \mathbf{n} - \mathbf{l_i})! \cdot (\mathbf{n} - j_i)!}$$

$D \geq \mathbf{n} < n \land I = 1 \land \mathbf{l_i} \leq D + s - \mathbf{n} \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} - 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \land$

$\mathbf{l_{ik}} - j_{sa}^{ik} + 1 = \mathbf{l_s} \land \mathbf{l_{sa}} + j_{sa}^{ik} - j_{sa} = \mathbf{l_{ik}} \land \mathbf{l_i} + j_{sa} - s = \mathbf{l_{sa}} \land$

$D \geq \mathbf{n} < n \land I = \Bbbk > 0 \land$

$j_{sa} = j_{sa}^{i} - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} = j_{sa}^{ik} - 1 \land$

$\mathbf{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \land$

$s \geq 5 \land \mathbf{s} = s + \Bbbk \land$

$\Bbbk_z: z = 3 \land \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i}=\sum_{k=1}^{(\ )}\sum_{(j_s=1)}^{(\ )}
\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_i}+j_{sa}^{ik}-s}\ \sum_{\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)}^{(\ )}\ \sum_{j_i=j^{sa}+s-j_{sa}}
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-\Bbbk_1-j_{ik}+1)!}\cdot
\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot
\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot
\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot
\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot
\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}
$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\Bbbk>0\wedge$

$j_{sa}=j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\Bbbk_1,j_{sa}^{ik},\cdots,\Bbbk_2,j_{sa},\Bbbk_3,j_{sa}^{i}\right\}\wedge$

$s\geq5\wedge\boldsymbol{s}=s+\Bbbk\wedge$

$\mathbb{k}_z: z = 3 \land \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$ {}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1}^{(\ )} \sum_{(j_s=1)}^{(\ )} $$

$$ \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}} $$

$$ \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=n_{sa}+\mathbb{k}_3+j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} $$

$$ \sum_{n_{sa}=n_s+j_i-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{n_s=\boldsymbol{n}-j_i+1}^{(n_{sa}+j^{sa}-j_i)} $$

$$ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot $$

$$ \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot $$

$$ \frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot $$

$$ \frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot $$

$$ \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} $$

$D \geq \boldsymbol{n} < n \land I = 1 \land \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \land$

$1 \leq j_s \leq \boldsymbol{l_s} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \land$

$D \geq \boldsymbol{n} < n \land I = \mathbb{k} > 0 \land$

$j_{sa} = j_{sa}^{i} - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} = j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \land$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1}^{(\ )} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=[illegible]^{a}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}[illegible]}^{n} \sum_{[illegible]=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_i[illegible]}^{(n_i-j_{ik}-\mathbb{k}[illegible]+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}[illegible]-j^{sa}+1}^{[illegible]+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{([illegible]+1)}^{[illegible]a+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i [illegible] n_{ik} - 1)!}{(j_{ik} [illegible] 2)! \cdot (n_i [illegible] n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{s}[illegible] - \mathbb{k}_2 - 1)!}{([illegible] - j_{ik} - [illegible])! \cdot (n_[illegible] j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{([illegible] - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D [illegible] \boldsymbol{n} < [illegible] \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j[illegible] - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$
{}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=\ldots)}^{(\ \ )}
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}\ldots} \sum_{(j^{sa}=\ldots)}^{(\ldots a)} \sum_{j_i=s}^{\boldsymbol{l_i}}
$$

$$
\sum_{\ldots\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\ldots\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1\ldots)}
$$

$$
\sum_{\ldots=\boldsymbol{n}+\mathbb{k}_3-\ldots 1}^{n_{ik}\ldots-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(\ldots-j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2\ldots)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(\ldots - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - \ldots - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot
$$

$$
\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot
$$

$$
\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, \ldots}$$ [illegible] $$= \sum_{k \ldots} \sum_{(\ldots = 1)}^{(\ )}$$ [illegible]

$$\sum_{j_{ik} = \ldots j_{sa}^{ik} - j_{sa}} \ \sum^{(\ldots + j_{sa} - j_{sa}^{ik})} \ \sum_{j_i = s}^{\boldsymbol{l_i}}$$ [illegible]

$$\sum_{n_i = \ldots + \mathbb{k}}^{n} \ \sum_{(n_{ik} = \boldsymbol{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)}$$ [illegible]

$$\sum_{n_{sa} = \boldsymbol{n} + \mathbb{k}_3 - j^{sa} + 1}^{n_{ik} + j_i - j^{sa} - \mathbb{k}_2} \ \sum_{(n_s = \boldsymbol{n} - j_i + 1)}^{(n_{sa} + j^{sa} - j_i - \mathbb{k}_3)}$$ [illegible]

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$j \ldots ,j_{ik},j^{sa},j_i \ldots \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}}_{\ldots j_{sa}^{ik}} \sum^{(\ )}_{(j^{sa}=\ldots+j_{sa}-j_{sa}^{ik})} \sum^{\boldsymbol{l_i}}_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \land$

$D \geq \boldsymbol{n} < n \land I = \Bbbk > 0 \land$

$j_{sa} = j_{sa}^{i} - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} = j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \land$

$s \geq 5 \land \boldsymbol{s} = s + \Bbbk \land$

$\Bbbk_z: z = 3 \land \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$j_s\ ,j_{ik},j^{sa},j_i = \sum_{k=1} \sum_{(j_s=1)}^{(\ \ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ \ )} \sum_{j_i=j^{sa}+s-j_{sa}}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s\geq\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}=j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\mathbb{k}_3,j_{sa}^{i}\right\}$

$s\geq5\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_i}+j_{sa}-s)}\sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-[illegible])!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-[illegible])!\cdot([illegible]-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-[illegible]-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-[illegible])!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq[illegible]+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}[illegible]1\leq j_{ik}\leq[illegible]^{a}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+[illegible]-j_{sa}^{ik}\leq j^{s}[illegible]j_i+j_{sa}-s\wedge[illegible]-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>[illegible]\wedge\boldsymbol{l_{sa}}+[illegible]^{ik}-j_{sa}[illegible]\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq[illegible]<n\wedge I=\mathbb{k}[illegible]0\wedge$

$j_{sa}=j_{sa}^{i}[illegible]1\wedge j_{sa}^{ik}<j_s[illegible]-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{s}^{s}[illegible]_1,j_{sa}^{ik},[illegible]_{sa},\mathbb{k}_3,j_{sa}^{i}\}\wedge$

$s\geq5\wedge\boldsymbol{s}[illegible]+\mathbb{k}\wedge$

$[illegible]\cdot z=2[illegible]\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i}=\sum_{k=1}\ \sum_{(j_s=1)}^{(\ \ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(j_{sa}^{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\colon \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1}^{(\ )} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=s}^{\boldsymbol{l_{sa}}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_i} - s + 1 > \boldsymbol{l_s} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n})\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$[\text{illegible}]_{z}S_{j_s,j_{ik},j^{[\text{illegible}]}} = \sum_{k=1}^{[\text{illegible}]} \sum_{(j_s=[\text{illegible}])}^{([\text{illegible}])} \sum_{[\text{illegible}]_k=j_{sa}^{ik}}^{\boldsymbol{l}_{ik}[\text{illegible}]} \sum_{(j^{sa}=j_{sa})}^{[\text{illegible}]\boldsymbol{l}_{sa})} \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=[\text{illegible}]+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{[\text{illegible}]-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{[\text{illegible}]j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik}$ [illegible] $1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j\ldots} = \sum_{k=1} \sum_{(j_s=1)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(\boldsymbol{l_i} + j_{sa} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ \ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ \ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\Bbbk>0\wedge$

$j_{sa}=j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\Bbbk_1,j_{sa}^{ik},\cdots,\Bbbk_2,j_{sa},\Bbbk_3,j_{sa}^{i}\right\}\wedge$

$s\geq 5\wedge\boldsymbol{s}=s+\Bbbk\wedge$

$\Bbbk_z:z=3\wedge\Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(\cdots - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\cdots - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ \ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\mathbf{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)!\cdot(\mathbf{n}-j_i)!}\cdot$$

$$\frac{(\mathbf{l_{sa}}+j_{sa}^{ik}-\mathbf{l_{ik}}-j_{sa})!}{(\mathbf{l_{sa}}+j_{sa}^{ik}-j^{sa}-\mathbf{l_{ik}})!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(D-\mathbf{l_i})!}{(D+j_i-\mathbf{n}-\mathbf{l_i})!\cdot(\mathbf{n}-j_i)!}$$

$D \geq \mathbf{n} < n \wedge \mathbf{l_s} = 1 \wedge \mathbf{l_s} \leq D-\mathbf{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq j_i+j_{sa}-s \wedge j^{sa}+s-j_{sa} \leq j_i \leq \mathbf{n} \wedge$

$\mathbf{l_{ik}}-j_{sa}^{ik}+1 = \mathbf{l_s} \wedge \mathbf{l_{sa}}+j_{sa}^{ik}-j_{sa} > \mathbf{l_{ik}} \wedge \mathbf{l_i}+j_{sa}-s = \mathbf{l_{sa}} \wedge$

$D+s-\mathbf{n} < \mathbf{l_i} \leq D+\mathbf{l_s}+s-\mathbf{n}-1 \wedge$

$D \geq \mathbf{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}^{i}-1 \wedge j_{sa} = j_{sa}^{ik}-1 \wedge$

$\mathbf{s}: \left\{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}^{sa}, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 3 \wedge S = s+\Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1+\Bbbk_2+\Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=\mathbf{l_{sa}}+\mathbf{n}-D)}^{(\mathbf{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}\ \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa} - j^{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} > j_{sa}^{s} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s > 3 \wedge S = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-\mathbb{k}_1-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_s} + s < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\colon \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{[illegible]=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+[illegible]}^{n} \sum_{[illegible]k=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_i[illegible]}^{(n_i-j_{ik}-[illegible]+1)}$$

$$\sum_{n_{sa}=[illegible]-j^{sa}+1}^{[illegible]+j_{ik}-j^{sa}-\mathbb{k}_2[illegible]} \sum_{[illegible]+1)}^{[illegible]a+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i[illegible]n_{ik}-1)!}{(j_{ik}[illegible]2)! \cdot (n_i[illegible]n_{ik}-j_{ik}+1)!} \cdot$$

$$\frac{(n_{ik}-n_{sa}[illegible]\mathbb{k}_2-1)!}{([illegible]-j_{ik}-[illegible])! \cdot (n_i[illegible]j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa}-n_s-1)!}{([illegible]-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)! \cdot (\boldsymbol{n}-j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})! \cdot \left(j_{ik}-j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})! \cdot (\boldsymbol{n}-j_i)!}$$

$D[illegible]\boldsymbol{n} <[illegible] \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j[illegible] - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} = j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \land$

$s \geq 5 \land \boldsymbol{s} = s + \Bbbk \land$

$\Bbbk_z: z = 3 \land \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{\cdots=1}^{(\cdots)} \sum_{(j_s=1)}^{(\cdots)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\;\;)} \sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-\cdots-j_{sa}}^{\boldsymbol{n}} $$

$$ \sum_{n_i=\cdots+\Bbbk}^{n} \sum_{(n_{ik}=\cdots-j_{ik}+1)}^{(\cdots-j_{ik}-\Bbbk_1+1)} \sum_{n_{sa}=\boldsymbol{n}\cdots-j^{sa}+1}^{\cdots+j_{ik}-\cdots-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)} $$

$$ \frac{(n_i - n_{ik} - 1)!}{(\cdots - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{\cdots} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot $$

$$ \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot $$

$$ \frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot $$

$$ \frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot $$

$$ \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} $$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \land$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \land$

$D \geq \boldsymbol{n} < n \land I = \mathbb{k} > 0 \land$

$j_{sa} = j_{sa}^{i} - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} = j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i} \right\} \land$

$s \geq 5 \land \boldsymbol{s} = s + \mathbb{k} \land$

$\mathbb{k}_z: z = 3 \land \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s [illegible], j_{ik}, j^{s} [illegible]} = \sum_{k [illegible]} \sum_{[illegible] = 1)}^{(\ )}$$

$$\sum_{j_{ik} - [illegible]^{a} + j^{ik} - j_{sa}} \sum_{(j^{s} [illegible] + j_{sa} - s [illegible])}^{(\ )} \sum_{[illegible] - D - j_{sa}^{ik}}^{\boldsymbol{n}}$$

$$\sum_{n_{i} [illegible] + \mathbb{k}}^{n} \sum_{(n_{ik} = \boldsymbol{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)}$$

$$\sum_{n_{sa} = \boldsymbol{n} + \mathbb{k}_3 - j^{sa} + 1}^{n_{ik} + j_{i} [illegible]^{sa} - \mathbb{k}_2} \sum_{(n_s = \boldsymbol{n} - j_i + 1)}^{(n_{sa} + j^{sa} - j_i - \mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{([illegible]^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$$

$$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$$

$$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$$

$$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$$

$$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$\text{[illegible]} S \text{[illegible]} j_{ik}, j^{sa}, j_i \text{[illegible]} = \sum_{\text{[illegible]}=1}^{\text{[illegible]}} \sum_{(j_s=1)}^{(\text{[illegible]}}$$

$$\sum_{j_{ik} \text{[illegible]} {}^{sa} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} \text{[illegible]} \boldsymbol{n} + j_{sa} - D \text{[illegible]} s)}^{(\boldsymbol{n} + \text{[illegible]} - s)} \sum_{j_i = j^{sa} + s - j_{sa}}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}} \sum_{(n_{ik} = \boldsymbol{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)}$$

$$\sum_{n_{sa} = \boldsymbol{n} + \mathbb{k}_3 - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2} \sum_{(n_s = \boldsymbol{n} - j_i + 1)}^{(n_{sa} + j^{sa} - j_i - \mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\;)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}-j_{sa}^{ik}} \; \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{([illegible]+j_{sa}-s)} \; \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \; \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \; \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik}$ [illegible] $1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3$ [illegible]

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ \ )}$$

$$\sum_{[illegible]\,j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}^{ik}-D-s}^{\boldsymbol{n}+j_{sa}^{ik}-s} \sum_{\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - \text{[illegible]})!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\text{[illegible]} - j_{sa}^{ik} \text{[illegible]})!}{(\text{[illegible]} - j_{ik})! \cdot (\text{[illegible]} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\text{[illegible]} - \boldsymbol{l_i})!}{(\text{[illegible]} - \boldsymbol{n} - \text{[illegible]})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} +$ [illegible] $- j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa}$ [illegible] $- j_{sa} \leq j_i \leq$ [illegible] $\wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik}$ [illegible] j_{sa} [illegible] $\wedge \boldsymbol{l_i} +$ [illegible] $- s =$ [illegible] $\wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} +$ [illegible] $- \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} =$ [illegible] $- 1 \wedge j_{sa}^{ik}$ [illegible] $- 1 \wedge j_{sa}^{s} =$ [illegible] $\wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik},$ [illegible] $\mathbb{k}_2, j_{sa},$ [illegible] $j_{sa}^{i}\} \wedge$

$s \geq$ [illegible] $\boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3$ [illegible] $\mathbb{k} = \mathbb{k}_1 +$ [illegible] $+ \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{n}+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\frac{(\mathbf{l_{ik}} - j_{sa}^{ik})!}{(\mathbf{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - \mathbf{l_i})!}{(D + j_i - \mathbf{n} - \mathbf{l_i})! \cdot (\mathbf{n} - j_i)!}$$

$D \ge \mathbf{n} < n \wedge \mathbf{l_s} = 1 \wedge \mathbf{l_s} \le D - \mathbf{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \le j_i \le \mathbf{n} \wedge$

$\mathbf{l_{ik}} - j_{sa}^{ik} + 1 > \mathbf{l_s} \wedge \mathbf{l_{sa}} + j_{sa}^{ik} - j_{sa} = \mathbf{l_{ik}} \wedge \mathbf{l_i} + j_{sa} - s = \mathbf{l_{sa}} \wedge$

$D + s - \mathbf{n} \le \mathbf{l_i} \le D - \mathbf{l_s} + s - \mathbf{n} - 1 \wedge$

$D \ge \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa}^{i} - 1 \wedge j_{sa} = j_{sa}^{ik} - 1 \wedge$

$\mathbf{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \ge 5 \wedge \mathbf{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\mathbf{l_{ik}}+\mathbf{n}-D}^{\mathbf{n}+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j^{ik}_{sa})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j^{ik}_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j^{ik}_{sa}+1 \wedge j_s+j^{ik}_{sa}-1 \leq j_{ik} \leq j^{sa}+j^{ik}_{sa}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j^{ik}_{sa} \leq j^{sa} \leq j_i+j_{sa}-s \wedge j^{sa}+s-j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}}-j^{ik}_{sa}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}-j^{ik}_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s > \boldsymbol{l_{sa}} \wedge$

$D+s-\boldsymbol{n} < \boldsymbol{l_i} \leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} > j^s_{sa}-1 \wedge j^{ik}_{sa} < j_{sa}-1 \wedge j^s_{sa} = j^{ik}_{sa}-1 \wedge$

$\boldsymbol{s}: \{j^s_{sa}, \Bbbk_1, j^{ik}_{sa}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j^i_{sa}\} \wedge$

$s \geq 2 \wedge S = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1+\Bbbk_2+\Bbbk_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=n-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq j_i+j_{sa}-s \wedge j^{sa}+s-j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_{sa}}+s-j_{sa} < \boldsymbol{l_i} \leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} = j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \land \boldsymbol{s} = s + \mathbb{k} \land$

$\mathbb{k}_z: z = 3 \land \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}^{(\boldsymbol{l_{ik}}+j_{sa}-j_{sa}^{ik})} \sum_{[illegible]=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}[illegible]}^{n} \sum_{[illegible]=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{i}[illegible])}^{([illegible]-j_{ik}-\mathbb{k}[illegible]1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}[illegible]-j^{sa}+1}^{([illegible]-j^{sa}-\mathbb{k}_2} \sum_{(n_s[illegible]i+1)}^{[illegible]+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i[illegible]n_{ik}-1)!}{(j_{ik}[illegible])! \cdot (n_i[illegible]n_{ik}-j_{ik}+1)!} \cdot$$

$$\frac{(n_{ik}-n_s[illegible]\mathbb{k}_2-1)!}{([illegible]j_{ik}-[illegible])! \cdot (n[illegible]j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa}-n_s-1)!}{([illegible]-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)! \cdot (\boldsymbol{n}-j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})! \cdot (j_{ik}-j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})! \cdot (j_i+j_{sa}-j^{sa}-s)!} \cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})! \cdot (\boldsymbol{n}-j_i)!}$$

D [illegible] $n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \land$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \land$

$D \geq \boldsymbol{n} < n \land I = \mathbb{k} > 0 \land$

$j_{sa} = j_{sa}^{i} - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} = j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i} \right\} \land$

$s \geq 5 \land \boldsymbol{s} = s + \mathbb{k} \land$

$\mathbb{k}_z: z = 3 \land \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{\text{[illegible]}}} = \sum_{\text{[illegible]}} \sum_{\text{[illegible]}=1)}^{(\ )}$$

$$\sum_{j_{ik} = \boldsymbol{l_{sa}} + \boldsymbol{n} \text{[illegible]} - D - j_{sa}}^{\boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa}} \sum_{\text{[illegible]} = j_{ik} + j_{sa} \text{[illegible]}}^{(\ \text{[illegible]})} \sum_{\text{[illegible]} + \boldsymbol{n} - D}^{\boldsymbol{n}}$$

$$\sum_{n_i \text{[illegible]} + \mathbb{k}}^{n} \sum_{(n_{ik} = \boldsymbol{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)}$$

$$\sum_{n_{sa} = \boldsymbol{n} + \mathbb{k}_3 - j^{sa} + 1}^{n_{ik} + j_i \text{[illegible]} j^{sa} - \mathbb{k}_2} \sum_{(n_s = \boldsymbol{n} - j_i + 1)}^{(n_{sa} + j^{sa} - j_i - \mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!}$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ \ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ \ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!}$$

$$\frac{(D - \boldsymbol{l_s})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{l_i} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s = 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 \geq \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} \geq \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \land$

$D + \boldsymbol{l_s} - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \land$

$D \geq \boldsymbol{n} < n \land I = \mathbb{k} > 0 \land$

$j_{sa} = j_{sa}^{i} - 1 \land j_{sa}^{ik} = j_{sa} - 1 \land j_{sa}^{s} = j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \land$

$\boldsymbol{s} > 5 \land \boldsymbol{s} = s + \mathbb{k} \land$

$\mathbb{k}_z: z = 3 \land \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=n_{sa}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge$ [illegible] $\leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

[illegible] $< \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1}^{(\ )} \sum_{(j_s=1)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=[illegible]^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+[illegible]}^{n} \sum_{[illegible]_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-[illegible]1)}^{(n_i-j_{ik}-[illegible]+1)}$$

$$\sum_{n_{sa}=[illegible]-j^{sa}+1}^{[illegible]+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{[illegible]+1)}^{[illegible]_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_{[illegible]} n_{ik}-1)!}{(j_{ik}[illegible]2)!\cdot(n_{[illegible]} n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{s[illegible]}-\mathbb{k}_2-1)!}{([illegible]-j_{ik}[illegible])!\cdot(n_{i[illegible]} j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{([illegible]-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$([illegible] < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_i} - s + 1 > \boldsymbol{l_s} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$f_Z(j_s, j_{ik}, j^{sa}, j_i) = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{\left(\boldsymbol{l_{ik}} - j_{ik}\right)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s\right)!}{\left(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}}\right)! \cdot \left(j_i + j_{sa} - j^{sa} - s\right)!} \cdot$$

$$\frac{\left(D - \boldsymbol{l_i}\right)!}{\left(D + j_i - \boldsymbol{n} - \boldsymbol{l_i}\right)! \cdot \left(\boldsymbol{n} - j_i\right)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} + 1 \wedge$

$\boldsymbol{s}\colon \left\{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_i\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z\colon z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{f_z}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\;)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\;)} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}^{(\ )}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s+1}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}-j_{ik}-j^{sa}}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}-j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(\boldsymbol{l_i}+j_{sa}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\Bbbk>0\wedge$

$j_{sa} = j_{sa}^{i} - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} = j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}\colon \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \land$

$s \geq 5 \land \boldsymbol{s} = s + \Bbbk \land$

$\Bbbk_z\colon z = 3 \land \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\;)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\;)} \sum_{j_i=s} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot
$$

$$
\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{(\;)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\;)} \sum_{j_i=s+1}^{\boldsymbol{l_i}} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\Bbbk>0\wedge$

$j_{sa}=j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\Bbbk_1,j_{sa}^{ik},\cdots,\Bbbk_2,j_{sa},\Bbbk_3,j_{sa}^{i}\}\wedge$

$s\geq 5\wedge\boldsymbol{s}=s+\Bbbk\wedge$

$\Bbbk_z:z=3\wedge\Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-\text{[illegible]})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\text{[illegible]}-s)!}\right)$$

$$\left(\sum_{k=1}^{(\ )}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=\text{[illegible]}ik}^{\text{[illegible]}}\sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})}\sum_{j_i=\text{[illegible]}}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=\text{[illegible]}\mathbb{k}}^{(\text{[illegible]}_{ik}-\mathbb{k}_1+1)}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2\text{[illegible]}j_{ik}+1)}^{\text{[illegible]}}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\text{[illegible]}-j^{sa}+1}^{\text{[illegible]}+j_{ik}-j^{\text{[illegible]}}}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(\text{[illegible]}^{sa}-\text{[illegible]}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=[illegible]} \sum_{(j^{sa}=j_{sa})}^{[illegible]} \sum_{j_i=s[illegible]}^{[illegible]} \right.$$

$$\sum_{n_i=\boldsymbol{n}+[illegible]}^{n} \sum_{[illegible]_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{[illegible]}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}[illegible]-j^{sa}+1}^{n_{ik}[illegible]-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{[illegible]n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{([illegible]_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=s+1}^{\boldsymbol{l_i}} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}[illegible])!}$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-[illegible]_s-j_i)!}$$

$$\frac{(n_s-[illegible]}{(n_s+j_i[illegible]\boldsymbol{n}-1)!\cdot(\boldsymbol{n}[illegible])!}\cdot$$

$$\frac{(\boldsymbol{l}[illegible]-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}[illegible])![illegible]-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{[illegible]+j_i-[illegible]\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s[illegible]_{sa} - 1 \leq [illegible] \leq j^{s}[illegible]j^{ik}[illegible]_{a} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + [illegible] - s \wedge j^{sa} + [illegible] j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > [illegible] \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{s}[illegible] \boldsymbol{l_{ik}} \wedge \boldsymbol{l}[illegible] j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n[illegible] = \mathbb{k} > [illegible] \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j[illegible] < j_{sa} - [illegible] \wedge j_{s}^{s}[illegible] j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}[illegible], j_{sa}^{ik}, \cdots, \mathbb{k}_2, j[illegible] \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = [illegible] + \mathbb{k} \wedge$

$\mathbb{k}_z: [illegible] \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\text{[illegible]})!}{(D\text{[illegible]}s-\text{[illegible]}\boldsymbol{l}\text{[illegible]})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\text{[illegible]})}\sum_{j_{ik}=\text{[illegible]}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})}\sum_{j_i=s+1}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s\text{[illegible]},j^{sa},j_i} = \left(\sum_{k=1}^{\text{[illegible]}} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{\text{[illegible]}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\sum_{j_i=s+1}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(\boldsymbol{l_{sa}}+j_{ik}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$\big((D \geq s < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \lor$

$(D \geq s < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_i} - s + 1 > \boldsymbol{l_s} \land$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n})\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=s}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!}\right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=s+1}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_s}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_{sa}}-j_i-\boldsymbol{l_i})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=s\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge\mathbb{I}=\Bbbk>0\wedge$

$j_{sa}-j_{sa}^{i}>1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\Bbbk_1,j_{sa}^{ik},\cdots,\Bbbk_2,j_{sa},\Bbbk_3,j_{sa}^{i}\}\wedge$

$s\geq5\wedge\boldsymbol{s}=s+\Bbbk\wedge$

$\Bbbk_z:z=3\wedge\Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D-s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{=1}\ \sum_{(j_s=1)}^{(\ )}\ \sum_{j_{ik}=j_{sa}^{ik}}\ \sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_{sa}})}\ \sum_{j_i=j^{sa}+s-j_{sa}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}=j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\mathbb{k}_3,j_{sa}^{i}\right\}\wedge$

$s\geq5\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}\left(\sum_{k=1}\sum_{(j_s=1)}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_{sa}})}\sum_{j_i=j^{sa}+s-j_{sa}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3+j_i-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}+\mathbb{k}_3)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}^{(\ )} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)} \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!} \cdot \frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!} \cdot \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!} \cdot \frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!} \cdot \frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right) +
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=j^{sa}+s-j_{sa}} \sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)} \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!} \cdot \frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!} \cdot
$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_{ik}}}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}\sum_{j_i=j^{sa}+s-j_{sa}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+j^{sa}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+j^{sa}-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \land$$

$$D \geq \boldsymbol{n} < n \land I = \mathbb{k} > 0 \land$$

$$j_{sa} = j_{sa}^{i} - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} = j_{sa}^{ik} - 1 \land$$

$$\boldsymbol{s}\colon \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\right\} \land$$

$$s \geq 5 \land \boldsymbol{s} = s + \mathbb{k} \land$$

$$\mathbb{k}_z\colon z = 3 \land \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=\text{[illegible]})}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j\text{[illegible]})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}\text{[illegible]}-j_{ik}+1)}^{(\text{[illegible]}-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}\text{[illegible]}\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-\text{[illegible]}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(\text{[illegible]})! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{\text{[illegible]}} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!}\right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=s+1}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_s}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} < j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + \boldsymbol{l_s} - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!} \cdot \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!} \cdot \frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!} \cdot \frac{([illegible]-\boldsymbol{l_i})!}{(D-s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!} \Bigg) +$$

$$\Bigg(\sum_{k=1}^{[illegible]} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!} \cdot \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!} \cdot \frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(\boldsymbol{l_i}+j_{sa}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j^{ik}_{sa} + 1 \wedge j_s + j^{ik}_{sa} - 1 \leq j_{ik} \leq j^{sa} + j^{ik}_{sa} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j^{ik}_{sa} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j^{ik}_{sa} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j^{ik}_{sa} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j^{i}_{sa} - 1 \wedge j^{ik}_{sa} < j_{sa} - 1 \wedge j^{s}_{sa} = j^{ik}_{sa} \,?\, 1 \wedge$

$\boldsymbol{s}: \left\{j^{s}_{sa}, \mathbb{k}_1, j^{ik}_{sa}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j^{i}_{sa}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j^{ik}_{sa}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_{ik}} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{l} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z : z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\;)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\;)} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\;)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq j_i+j_{sa}-s \wedge j^{sa}+s-j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s = \boldsymbol{l_{sa}} \wedge$

$D+s-\boldsymbol{n} < \boldsymbol{l_i} \leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} = j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = 5+\Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1+\Bbbk_2+\Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}\cdots)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\cdots-s)!}\right)$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}\cdots+j_{sa}-s)}\sum_{j_i=\boldsymbol{l_i}+\cdots}\right.$$

$$\sum_{n_i=\cdots\mathbb{k}}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2\cdots j_{ik}+1)}^{(n_i\cdots j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\cdots-j^{sa}+1}^{\cdots+j_{ik}-j^{s\cdots}}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-\cdots-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$$

$$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$$

$$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$$

$$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$$

$$\boldsymbol{s}: \left\{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\right\} \wedge$$

$$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$$

$$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ \ )} \sum_{j_{ik}=\text{[illegible]}} \sum_{(j^{sa}=j_{sa})}^{\text{[illegible]})} \sum_{j_i=\text{[illegible]}} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\text{[illegible]}}^{n} \sum_{\text{[illegible]}_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-\text{[illegible]}\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}\text{[illegible]}-j^{sa}+1}^{n_{ik}\text{[illegible]}-j^{sa}-\Bbbk_2\text{[illegible]}} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(\text{[illegible]}_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!}\right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ \ )} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_s}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+j_i-\boldsymbol{n}<\boldsymbol{l_i}\leq D-\boldsymbol{l_s}+s-j_{sa}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}=j_{sa}^i-1\wedge j_{sa}^{ik}=j_{sa}^{sa}-1\wedge j_{sa}^s=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^s,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\mathbb{k}_3,j_{sa}^i\}\wedge$

$s\geq 5\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z: z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}\ \sum_{j_{ik}=j_{sa}^{ik}}\ \sum_{(j^{sa}=j_{sa})}^{(\ )}\ \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(\ldots-\boldsymbol{l_i})!}{(D\ldots s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}^{\ldots}\ \sum_{(\ldots=1)}^{(\ldots)}\ \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}}\ \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\ \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_i} - s + 1 > \boldsymbol{l_s} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\}$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ \ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ \ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\text{[illegible]})!}{(D+s-\text{[illegible]}-\boldsymbol{l}_{\text{[illegible]}})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=\text{[illegible]}}^{\text{[illegible]}} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}\text{[illegible]}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{\text{[illegible]}} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} \right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, \ldots, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\;)}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)}\sum_{j_i=j^{sa}+s-j_{sa}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge$ [illegible] $\leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + \boldsymbol{l_s} - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot
$$

$$
\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(j_i - j_{sa}^{ik})!}{(j_i - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + \boldsymbol{l_s} - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdot\cdot, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - \ldots)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left.\frac{(\ldots \boldsymbol{l_i})!}{(D + s \ldots \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\ldots s)!}\right) +$$

$$\left(\sum_{\ldots=1}^{\ldots} \sum_{(j_s=1)}^{(\ldots)}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{n}+j_{sa}^{ik}\ldots} \sum_{(j^{s\ldots}\ldots_{ik}+j_{sa}-j_{sa}^{ik})}^{\ldots} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_{[illegible]}, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=[illegible]} \sum_{(j_s=1)} \sum_{j_{ik}=[illegible]} \sum_{(j^{sa}=j_{sa})} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{()}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()}\sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-j_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + \boldsymbol{l_s} - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$ {}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right. $$

$$ \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} $$

$$ \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} $$

$$ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - \mathbb{k}_1 - j_{ik} + 1)!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot $$

$$ \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot $$

$$ \frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot $$

$$ \left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) + $$

$$ \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \right. $$

$$ \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} $$

$$ \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} $$

$$ \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} $$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-[illegible])!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{([illegible]-j_{sa}^{ik})!}{([illegible]-j_{ik})!\cdot([illegible]-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-[illegible])!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-[illegible])!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-[illegible]\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$ [illegible]

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+$ [illegible] $j_{ik}\leq$ [illegible] $+j_{sa}^{ik}-$ [illegible] $\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i$ [illegible] $_{sa}-s\wedge j^{sa}+$ [illegible] $-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-$ [illegible] $=\boldsymbol{l_{ik}}\wedge\boldsymbol{l}$ [illegible] $j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+$ [illegible] $\boldsymbol{n}<\boldsymbol{l_i}\leq$ [illegible] $\boldsymbol{l_s}+s-\boldsymbol{n}-$ [illegible]

D [illegible] $\boldsymbol{n}<n\wedge$ [illegible] $\mathbb{k}>0$ [illegible]

j_{sa} [illegible] $j_{sa}^{i}-1\wedge j_{sa}^{ik}$ [illegible] $_{sa}-1\wedge$ [illegible] $=j_{sa}^{ik}-1\wedge$

[illegible] $\{j_{sa}^{s},\mathbb{k}_1,$ [illegible] $,\cdots,\mathbb{k}_2,j_{s}$ [illegible] $\mathbb{k}_3,j_{sa}^{i}\}\wedge$

$s\geq 5$ [illegible] $\boldsymbol{s}=s$

$\mathbb{k}_z\colon z=3$ [illegible] $\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\;\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\cdots)!}{(D-s-\cdots\boldsymbol{l}_i)!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\;\sum_{(j_s=1)}^{(\;)}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l}_i\cdots+j_{sa}^{ik}-D-s}^{\boldsymbol{n}+j\cdots s}\;\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\cdots)}\;\sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\;\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\;\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j^{ik}_{sa}\right)!}{\left(\boldsymbol{l_{ik}}-j_{ik}\right)!\cdot\left(j_{ik}-j^{ik}_{sa}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j^{ik}_{sa} + 1 \wedge j_s + j^{ik}_{sa} - 1 \leq j_{ik} \leq j^{sa} + j^{ik}_{sa} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j^{ik}_{sa} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j^{ik}_{sa} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j^{ik}_{sa} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j^{i}_{sa} - 1 \wedge j^{ik}_{sa} < j_{sa} - 1 \wedge j^{s}_{sa} = j^{ik}_{sa} - 1 \wedge$

$\boldsymbol{s}: \left\{j^{s}_{sa}, \mathbb{k}_1, j^{ik}_{sa}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j^{i}_{sa}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$

$$_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j^{ik}_{sa}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{()}\right.$$

$$\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{()}\sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{n_s=\boldsymbol{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa}=j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\mathbb{k}_3,j_{sa}^{i}\}\wedge$

$s\geq 5\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{()}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{()}\sum_{j_i=s}\right. $$

$$ \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} $$

$$ \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}\sum_{n_s=\boldsymbol{n}-j_i+1}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} $$

$$ \frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot $$

$$ \frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot $$

$$ \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot $$

$$ \frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot $$

$$ \left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+ $$

$$ \left(\sum_{k=1}\sum_{(j_s=1)}^{()}\right. $$

$$ \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{()}\sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}} $$

$$ \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} $$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j^{ik}_{sa})!}{(\boldsymbol{l_{ik}}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_s}-j^{ik}_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j^{ik}_{sa} + 1 \wedge j_s + j^{ik}_{sa} - 1 \leq j_{ik} \leq j^{sa} + j^{ik}_{sa} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j^{ik}_{sa} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j^{ik}_{sa} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j^{ik}_{sa} - j_{sa} \leq \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} \leq \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{ik} - 1 \wedge j^{ik}_{sa} < j_{ik} - 1 \wedge j^{s}_{sa} = j^{ik}_{sa} - 1 \wedge$

$\boldsymbol{s}: \left\{j^{s}_{sa}, \mathbb{k}_1, j_{ik}, \cdots, \mathbb{k}_2, j^{sa}, \mathbb{k}_3, j^{i}_{sa}\right\} \wedge$

$s \geq 3 \wedge I = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\;,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\;)} \sum_{j_{ik}=j^{ik}_{sa}} \sum_{(j^{sa}=j_{sa})}^{(\;)} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-[illegible])!}{(D+s-[illegible]\boldsymbol{l}_{[illegible]})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\;)}\right.$$

$$\sum_{j_{ik}=[illegible]_{ik}+\boldsymbol{n}-D}\ \sum_{(j^{sa}=j_i+j_{sa}-s)}^{([illegible]}\ \sum_{j_i=\boldsymbol{l}_{sa}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{\left(\boldsymbol{l_{ik}} - j_{ik}\right)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \land$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - s \land$

$D \geq \boldsymbol{n} < n \land I = \mathbb{k} > 0 \land$

$j_{sa} = j_{sa}^{i} - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} = j_s - 1 \land$

$\boldsymbol{s}\colon \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\right\} \land$

$s \geq 5 \land \boldsymbol{s} = s + \mathbb{k} \land$

$\mathbb{k}_z\colon z = 3 \land \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}^{(\ )}\sum_{(j_s=\dots)}\dots\right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}\dots)}^{(\boldsymbol{n}+j_{sa}-s)}\ \sum_{\dots j^{sa}\dots-j_{sa}}$$

$$\sum_{n_i=\dots}^{\boldsymbol{n}}\ \sum_{(n_{ik}=\boldsymbol{n}+\dots+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\dots+\mathbb{k}_3-j^{sa}\dots}^{n_{ik}+j\dots-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}\dots j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-\dots)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$\dots>\boldsymbol{n}\dots\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \land$

$D \geq \boldsymbol{n} < n \land I = \mathbb{k} > 0 \land$

$j_{sa} = j_{sa}^{i} - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} = j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i} \right\} \land$

$s \geq 5 \land \boldsymbol{s} = s + \mathbb{k} \land$

$\mathbb{k}_z: z = 3 \land \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$ {}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=\text{[illegible]}}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{\text{[illegible]}} \sum_{(j^{sa}=\text{[illegible]}}^{(\text{[illegible]}} \sum_{j_i=s}^{\text{[illegible]}} \right. $$

$$ \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\text{[illegible]}-j_{ik}+1)}^{(\text{[illegible]}-j_{ik}-\mathbb{k}_1+1)} $$

$$ \sum_{n_{sa}=\text{[illegible]}\mathbb{k}_3-j^{sa}+1}^{(n_{ik}+j_{ik}-\text{[illegible]}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} $$

$$ \frac{\text{[illegible]}n_i - n_{ik} - 1)!}{\text{[illegible]})! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_i\text{[illegible]} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot $$

$$ \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot $$

$$ \frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot $$

$$ \left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) + $$

$$ \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \right. $$

$$ \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} $$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge S = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D-s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{n}+j_s^{ik}-s}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}\ \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} =$ [illegible] $- 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

fz [illegible] $_{,j^{sa},j_i} =$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\,)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\,)} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!}\right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=\ldots)}^{(\ )} \ldots\right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=\ldots+s-\ldots-j_{sa}^{ik}}$$

$$\sum_{n_i\ldots}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\ldots+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}\ldots+\mathbb{k}_3-j^{sa}\ldots}^{n_{ik}+j\ldots j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}\ldots j_i-\mathbb{k}_3)}$$

$$\frac{(\ldots n_i - n_{ik} - 1)!}{(j_{ik} - \ldots)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j\ldots - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

[illegible] $> \boldsymbol{n}$ [illegible] $\wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=\text{[illegible]})}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=\text{[illegible]})}^{(\text{[illegible]})} \sum_{\text{[illegible]}=s} \right.$$

$$\sum_{\text{[illegible]}\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\text{[illegible]}-j_{ik}+1)}^{(\text{[illegible]}-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\text{[illegible]}\mathbb{k}_3-j^{sa}+1}^{(n_{ik}+j_{ik}-\text{[illegible]}-\mathbb{k}_2)} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(\text{[illegible]}n_i - n_{ik} - 1)!}{(\text{[illegible]})! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{i}\text{[illegible]} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j^{ik}_{sa})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j^{ik}_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \ge \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \le D - \boldsymbol{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j^{ik}_{sa} + 1 \wedge j_s + j^{ik}_{sa} - 1 \le j_{ik} \le j^{sa} + j^{ik}_{sa} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j^{ik}_{sa} \le j^{sa} \le \boldsymbol{n} + j_{sa} - s \wedge j^{sa} + s - j_{sa} \le j_i \le \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j^{ik}_{sa} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa} - j^{ik}_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} > D - \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa} \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} \ge j^{s}_{sa} - 1 \wedge j^{ik}_{sa} < j_{sa} - 1 \wedge j^{s}_{sa} = j^{ik}_{sa} - 1 \wedge$

$\boldsymbol{s}: \left\{j^{s}_{sa}, \Bbbk_1, j^{ik}_{sa}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j^{i}_{sa}\right\} \wedge$

$s \ge 2 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+\cdots)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\cdots-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\cdots)}$$

$$\frac{(n_i - \cdots - 1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-\cdots+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(\cdots-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(\cdots+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(\cdots-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\cdots+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(\boldsymbol{l_i}+j_{sa}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \cdots = 1 \wedge \cdots \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} \cdots 1 \wedge j_s + j_{sa}^{ik} \cdots \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \cdots + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_i} - s + 1 > \cdots \wedge$

$\boldsymbol{l_i} > \cdots + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} \cdots - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$
{}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ \ )} \right.
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-\text{[illegible]}}^{\boldsymbol{n}}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\text{[illegible]}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-\text{[illegible]}1}^{n_{ik}+j_{ik}-j^{sa}\text{[illegible]}} \sum_{(n_s=\boldsymbol{n}-j_i+\text{[illegible]})}^{(n_{sa}+j^{s}\text{[illegible]}j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i - n_{ik}\text{[illegible]}1)!}{(j_{ik}\text{[illegible]}2)! \cdot (\text{[illegible]}n_{ik}\text{[illegible]}j_{ik}+1)!} \cdot
$$

$$
\frac{(\text{[illegible]} - n_{sa}\text{[illegible]}\mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot \text{[illegible]} + j_{ik}\text{[illegible]}n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(\text{[illegible]} - n_s - 1)!}{(\text{[illegible]} - j^{sa} - 1)\text{[illegible]}(n_{sa} + j^{sa} - n_s - j_i)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} \right)
$$

$\text{[illegible]} > \boldsymbol{n}\text{[illegible]} \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_{ik}} > D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa},j_i} [illegible] \left(\sum_{k[illegible]}^{[illegible]} \sum_{([illegible]=1)}^{(\ )} \right.$$

$$\sum_{j_{ik}=[illegible]+\boldsymbol{n}-D}^{\boldsymbol{n}+j_{sa}^{ik}-s} \sum_{(j^{[illegible]}=j_{ik}+j_{sa}-j_{sa}[illegible])}^{(\ )} \sum_{[illegible]+s-j_{sa}}$$

$$\sum_{n_i=[illegible]+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{[illegible]}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} \right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \land$

$\boldsymbol{l_i} > D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \land$

$D \geq \boldsymbol{n} < n \land I = \Bbbk > 0 \land$

$j_{sa} = j_{sa}^{i} - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} = j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i} \right\} \land$

$s \geq 5 \land \boldsymbol{s} = s + \Bbbk \land$

$\Bbbk_z: z = 3 \land \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$\sum_{\text{[illegible]}\, j^{sa}, j_i} \left(\sum_{\text{[illegible]}=1} \sum_{(j_s=1)}^{(\text{[illegible]}} \right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{\text{[illegible]}^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\text{[illegible]}\, j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} \right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{\Bbbk_z}S_{j_s, j_{ik}, j^{[illegible]}} = \sum_{k=1} \sum_{(j_s=[illegible])} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})} \sum_{j_i=s}$$

$$\sum_{n_i=[illegible]+\Bbbk}^{\boldsymbol{n}} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{([illegible]-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{[illegible]_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}^{\boldsymbol{l_i}}
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(\boldsymbol{l_i} + j_{sa} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i - s)!} \cdot
$$

$$
\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=s}^{\boldsymbol{l_i}}
\sum_{n_i=\boldsymbol{n}+\Bbbk_1+\Bbbk_2+\Bbbk_3}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}+1)}
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} - j_{sa})!} \cdot
$$

$$
\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=[\text{illegible}]} \sum_{([\text{illegible}]=1)}^{(\ )} \sum_{j_{ik}=[\text{illegible}]}^{[\text{illegible}]} \sum_{(j^{sa}=[\text{illegible}])}^{[\text{illegible}]} \sum_{[\text{illegible}]}^{[\text{illegible}]} \sum_{j_i=s}^{\boldsymbol{l_{sa}}+s-j_{sa}} $$

$$ \sum_{n_{[\text{illegible}]}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} $$

$$ \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{[\text{illegible}]}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} $$

$$ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot $$

$$ \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot $$

$$ \frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot $$

$$ \frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot (j^{sa} - j_{sa})!} \cdot $$

$$ \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} $$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq \boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq \boldsymbol{n}<n\wedge I=\Bbbk>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\Bbbk_1,j_{sa}^{ik},\Bbbk_2,j_{sa},\cdots,\Bbbk_3,j_{sa}^{i}\right\}\wedge$

$s\geq 5\wedge \boldsymbol{s}=s+\Bbbk\wedge$

$\Bbbk_z:z=3\wedge \Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(j_i+j_{sa}-s)}\sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq \boldsymbol{n}<n\wedge \boldsymbol{l_s}=1\wedge \boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$[illegible]\, j_{ik}, j^{sa}, j_i [illegible] = \sum_{[illegible]=1} \sum_{(j_s=1)}^{([illegible]}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{[illegible]}} = \sum_{k=1}^{[illegible]} \sum_{(j_s=[illegible])}^{[illegible]} \sum_{j_{ik}=j_{sa}^{ik}}^{[illegible]} \sum_{(j^{sa}=j_{sa})}^{[illegible]\boldsymbol{l_{sa}})} \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=[illegible]+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{[illegible]-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{[illegible]_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=j^{sa}+s-j_{sa}}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\Bbbk>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\Bbbk_1,j_{sa}^{ik},\Bbbk_2,j_{sa},\cdots,\Bbbk_3,j_{sa}^{i}\right\}\wedge$

$s\geq 5\wedge\boldsymbol{s}=s+\Bbbk\wedge$

$\Bbbk_z:z=3\wedge\Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3\Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\ \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\ \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\}$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=s}^{\boldsymbol{l_{sa}}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}\text{[illegible]})!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}\text{[illegible]}_{sa})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(\text{[illegible]}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\text{[illegible]}\boldsymbol{l_i})!}{(D+\text{[illegible]}-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\text{[illegible]}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq \text{[illegible]} \leq j^{sa} + j_{sa}^{\text{[illegible]}}\text{[illegible]}j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge \text{[illegible]}^{sa} + s - j_{sa}\text{[illegible]} j_i \leq \text{[illegible]}$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \text{[illegible]} \wedge \boldsymbol{l_i} + j_{sa} - s\text{[illegible]}\boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa}\text{[illegible]} \wedge j_{sa}^{s} = j_{sa}^{\text{[illegible]}}\text{[illegible]}1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, \text{[illegible]}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \text{[illegible]}$

$\Bbbk\text{[illegible]} z = 3 \wedge \text{[illegible]} = \Bbbk_1 + \text{[illegible]} + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=s}^{\boldsymbol{l_{ik}}+s-j_{sa}^{ik}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{([illegible] - j_{sa}^{ik})!}{([illegible] - j_{ik})! \cdot ([illegible] - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{s}^{ik} = j_{sa} - 1 \wedge j_s = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_i}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{\text{[illegible]}})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-\text{[illegible]}-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-\text{[illegible]}}{(n_s+j_i\text{[illegible]}\boldsymbol{n}-1)!\cdot(\boldsymbol{n}\text{[illegible]})!}\cdot$$

$$\frac{(\boldsymbol{l}\text{[illegible]}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}\text{[illegible]})!\text{[illegible]}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{\text{[illegible]}D+j_i-\text{[illegible]}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s +$ [illegible] $_{sa} - 1 \leq$ [illegible] $\leq j^{s}$ [illegible] $j_{sa}^{ik} -$ [illegible] $\wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i +$ [illegible] $- s \wedge j^{sa} +$ [illegible] $- j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 >$ [illegible] $\wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{s}$ [illegible] $= \boldsymbol{l_{ik}} \wedge \boldsymbol{l}$ [illegible] $+ j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n$ [illegible] $I = \mathbb{k} >$ [illegible] $\wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j$ [illegible] $= j_{sa} -$ [illegible] $\wedge j_{s}^{s}$ [illegible] $j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}$ [illegible] $, j_{sa}^{ik}, \mathbb{k}_2, j_{sa},$ [illegible] $\mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s}$ [illegible] $+ \mathbb{k} \wedge$

$\mathbb{k}_z:$ [illegible] $\wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)!\cdot(\mathbf{n}-j_i)!}\cdot$$

$$\frac{(\mathbf{l_{ik}}-j_{sa}^{ik})!}{(\mathbf{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\mathbf{l_i})!}{(D+j_i-\mathbf{n}-\mathbf{l_i})!\cdot(\mathbf{n}-j_i)!}$$

$D \ge \mathbf{n} < n \land \mathbf{l_s} = 1 \land \mathbf{l_i} \le D + s - \mathbf{n} \land$

$1 \le j_s \le j_{ik} - j_{sa}^{i} + 1 \land j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \le j_i \le \mathbf{n} \land$

$\mathbf{l_{ik}} - j_{sa}^{ik} + 1 > \mathbf{l_s} \land \mathbf{l_{sa}} + j_{sa} - j_{sa}^{ik} = \mathbf{l_{ik}} \land \mathbf{l_i} + j_{sa} - s = \mathbf{l_{sa}} \land$

$D \ge \mathbf{n} < n \land I = \mathbb{k} > 0 \land$

$j_{sa} < j_{sa}^{i} - 1 \land j_{sa}^{ik} = j_{sa} - 1 \land j_{sa}^{s} = j_{sa}^{ik} - 1 \land$

$\mathbf{s}: \{\cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \land$

$s \ge 5 \land \mathbf{s} = s + \mathbb{k} \land$

$\mathbb{k}_2 \ge 0 \land \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \quad \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{ik}}+j_{sa}-j_{sa}^{ik})} \quad \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \quad \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \quad \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge I = 1 \wedge \boldsymbol{l_i} < D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} - 1 \wedge j_s + j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 \leq \boldsymbol{l_i} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$ {}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )} $$

$$ \sum_{j_{ik}=j_{sa}^{ik}}^{\mathbf{l_i}+j_{sa}^{ik}-s} \sum_{\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}} $$

$$ \sum_{n_i=\mathbf{n}+\Bbbk}^{n} \sum_{(n_{ik}=\mathbf{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} $$

$$ \sum_{n_{sa}=\mathbf{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)} $$

$$ \frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - \Bbbk_1 - j_{ik} + 1)!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot $$

$$ \frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot $$

$$ \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot $$

$$ \frac{\left(\mathbf{l_{ik}} - j_{sa}^{ik}\right)!}{(\mathbf{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot $$

$$ \frac{(D - \mathbf{l_i})!}{(D + j_i - \mathbf{n} - \mathbf{l_i})! \cdot (\mathbf{n} - j_i)!} $$

$D \geq \mathbf{n} < n \wedge \mathbf{l_s} = 1 \wedge \mathbf{l_i} \leq D + s - \mathbf{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$

$\mathbf{l_{ik}} - j_{sa}^{ik} + 1 > \mathbf{l_s} \wedge \mathbf{l_{sa}} + j_{sa}^{ik} - j_{sa} = \mathbf{l_{ik}} \wedge \mathbf{l_i} + j_{sa} - s = \mathbf{l_{sa}} \wedge$

$D \geq \mathbf{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\mathbf{s}: \left\{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \mathbf{s} = s + \Bbbk \wedge$

$\mathbb{k}_z: z=3 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3 \Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )} $$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_i+j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j_i+j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \ge \boldsymbol{n} < n \wedge j_{sa}+1 \le \boldsymbol{l_i} \le D+s-\boldsymbol{n} \wedge$

$1 \le j_s \le j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \le j_{ik} \le j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \le j^{sa} \le j_i+j_{sa}-s \wedge j^{sa}+s-j_{sa} \le j_i \le \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s = \boldsymbol{l_{sa}} \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i}-1 \wedge j_{sa}^{ik} = j_{sa}-1 \wedge j_{sa}^{s} = j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$
{}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}
$$

$$
\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}\ \sum_{j_i=j^{sa}+s-j_{sa}}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}-j_i}^{n}\ \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot
$$

$$
\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\colon \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z\colon z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=[illegible])}^{(\ )} \sum_{j_{ik}=j^{sa}+j_{sa}[illegible]} \sum_{(j^{sa}=j[illegible])}^{([illegible])} \sum_{j_i=s}^{\boldsymbol{l_i}} \sum_{[illegible]\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=[illegible]+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1[illegible])} \sum_{[illegible]=\boldsymbol{n}+\mathbb{k}_3-j[illegible]1}^{n_{ik}[illegible]-j^{sa}-\mathbb{k}_2[illegible]} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{([illegible]-j_i-\mathbb{k}_3)} $$

$$ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2[illegible]) \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot $$

$$ \frac{([illegible] - n_{sa} - 1)!}{([illegible] - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot $$

$$ \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot $$

$$ \frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot $$

$$ \frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot $$

$$ \frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot $$

$$ \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} $$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$$

$$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$$

$$\boldsymbol{s}: \left\{ j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$$

$$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z : z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i}$ [illegible] $= \sum_{k=[illegible]} \sum_{([illegible]=1)}^{(\ )}$

$\sum_{j_{ik}=j^{ik}_{sa}[illegible]-j_{sa}} \sum^{([illegible]+j_{sa}-j_{sa}^{ik})} \sum_{j_i=s}^{\boldsymbol{l_i}}$

$\sum_{n_i=[illegible]+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$

$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_i[illegible]j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\;)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\;)} \sum_{j_i=j^{sa}+s-j_{sa}}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

[illegible] $_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j_{sa}^{i}\right\}$

$s\geq 5\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_i}+j_{sa}-s)}\sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \Bbbk \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq n \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\;)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 \geq \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} \geq \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa}^{i} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$f_Z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\;)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1}^{(\ )} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=s}^{\boldsymbol{l_{sa}}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}\text{[illegible]}\mathbb{k}_2+\mathbb{k}_3\text{[illegible]}j_{ik}+1)}^{(n_i-j_{ik}\text{[illegible]}\mathbb{k}_1+1)}$$

$$\sum_{\text{[illegible]}-j^{sa}+1}^{n_{ik}+j_{ik}-\text{[illegible]}\mathbb{k}_2} \sum_{\text{[illegible]}=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}\text{[illegible]}\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik}\text{[illegible]}}{\text{[illegible]}j_{ik} - 2)!\text{[illegible]}(n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(\text{[illegible]} - n_{sa}\text{[illegible]}1)!}{(\text{[illegible]}^{sa} - j_{ik} - 1)!\text{[illegible]}n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - \text{[illegible]}_s - \mathbb{k}_3 - 1)!}{(j_i\text{[illegible]}j^{sa} - 1)!\text{[illegible]}(n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$\big((D \geq \boldsymbol{n} <$ [illegible] $\wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

1 [illegible] $\leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \le j_i \le \boldsymbol{n} \wedge$

$\boldsymbol{l_i} - s + 1 > \boldsymbol{l_s} \wedge$

$\boldsymbol{l_i} \le D + s - \boldsymbol{n})\big) \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \ge 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$\text{[illegible]}S_{j_s, j_{ik}, j^{\text{[illegible]}}} = \sum_{k=1}^{\text{[illegible]}} \sum_{(j_s=\text{[illegible]}}^{(\text{[illegible]}} \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}\text{[illegible]}} \sum_{(j^{sa}=j_{sa})}^{\text{[illegible]}\boldsymbol{l_{sa}})} \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\text{[illegible]}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{\text{[illegible]}-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{\text{[illegible]}j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(\boldsymbol{l_i} + j_{sa} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} + 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j_{sa}^{i}\right\}\wedge$

$s\geq5\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j^{ik}_{sa}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j^{ik}_{sa}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \ge \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \le D-\boldsymbol{n}+1 \wedge$

$1 \le j_s \le j_{ik}-j^{ik}_{sa}+1 \wedge j_s+j^{ik}_{sa}-1 \le j_{ik} \le j^{sa}+j^{ik}_{sa}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j^{ik}_{sa} \le j^{sa} \le j_i+j_{sa}-s \wedge j^{sa}+s-j_{sa} \le j_i \le \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}}-j^{ik}_{sa}+1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j^{ik}_{sa}-j_{sa} > \boldsymbol{l_s} \wedge \boldsymbol{l_i}+j_{sa}-s > \boldsymbol{l_{sa}} \wedge$

$D+s-\boldsymbol{n} < \boldsymbol{l_i} \le D+\boldsymbol{l_s}+s-\boldsymbol{n}-1 \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j^{i}_{sa}-1 \wedge j^{ik}_{sa} = j_{sa}-1 \wedge j^{s}_{sa} = j^{ik}_{sa}-1$

$\boldsymbol{s}:\left\{j^{s}_{sa},\mathbb{k}_1,j^{ik}_{sa},\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j^{i}_{sa}\right\} \wedge$

$s \ge 5 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1}\sum_{(j_s=1)}^{(\;)}$$

$$\sum_{j_{ik}=j^{ik}_{sa}}\ \sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)}\ \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} \geq \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} \geq \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} <$ [illegible] $- 1 \wedge j_{sa}^{ik} = j_{ik} - 1 \wedge j_{sa} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq$ [illegible] $= s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{n}+j_{sa}-s)}\ \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa} - j^{sa} \leq \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa}^{i} = j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-\mathbb{k}_2-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_{sa}} + s < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\colon \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1}\sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\ \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\ \sum_{j_i=\boldsymbol{l_i}+\mathbf{n}-D}^{\mathbf{n}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{n}\ \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)}\ \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \mathbf{n} - \boldsymbol{l_i})! \cdot (\mathbf{n} - j_i)!}$$

$D > \mathbf{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \mathbf{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \mathbf{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \mathbf{n} - 1 \wedge$

$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{j_{sa}=1} \sum_{(j_s=1)}^{(\,)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\,)} \sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-j_{sa}}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s [illegible], j_{ik}, j^{s[illegible]}, j [illegible]} = \sum_{k [illegible]} \sum_{[illegible] =1)}^{(\ )}$$

$$\sum_{j_{ik} = [illegible]^{a} + j^{ik} - j_{sa}} \sum_{(j^{s[illegible]} + j_{sa} - s [illegible]}^{(\ )} \sum_{[illegible] - D - j_{sa}^{ik}}^{\boldsymbol{n}}$$

$$\sum_{n_{[illegible]} + \mathbb{k}}^{n} \sum_{(n_{ik} = \boldsymbol{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)}$$

$$\sum_{n_{sa} = \boldsymbol{n} + \mathbb{k}_3 - j^{sa} + 1}^{n_{ik} + j_{i[illegible]} j^{sa} - \mathbb{k}_2} \sum_{(n_s = \boldsymbol{n} - j_i + 1)}^{(n_{sa} + j^{sa} - j_i - \mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\colon \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z\colon z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$\text{[illegible]}\, {}_{j_{ik}, j^{sa}, \text{[illegible]}} = \sum_{\text{[illegible]}=1}^{} \sum_{(j_s=1)}^{(\text{[illegible]}}$$

$$\sum_{j_{ik}\text{[illegible]}^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}\text{[illegible]}\boldsymbol{n}+j_{sa}-\text{[illegible]}s)}^{(\boldsymbol{n}+\text{[illegible]}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{\text{[illegible]}} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, [illegible] ^{sa}, j_i} = \sum_{k=1}^{[illegible]} \sum_{(j_s=1)}^{(\ \ )}$$

$$\sum_{[illegible] = j^{sa} + j_{sa} - [illegible]}^{[illegible]} \sum_{([illegible]^{sa} = \boldsymbol{l_{sa}} + \boldsymbol{n} - D)}^{([illegible] + j_{sa} - s)} \sum_{j_i = j^{sa} + s - j_{sa}}$$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{ik} = \boldsymbol{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)}$$

$$\sum_{n_{sa} = \boldsymbol{n} + \mathbb{k}_3 - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2} \sum_{(n_s = \boldsymbol{n} - j_i + 1)}^{(n_{sa} + j^{sa} - j_i - \mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\Bbbk>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}$ [illegible] $1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\Bbbk_1,j_{sa}^{ik},\Bbbk_2,j_{sa},\cdots,\Bbbk_3,j_{sa}^{i}\}\wedge$

$s\geq 5\wedge\boldsymbol{s}=s+\Bbbk\wedge$

$\Bbbk_z:z=3\wedge\Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3$ [illegible]

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\ )}$$

$$\sum_{[illegible]\,j^{sa}+j_{sa}^{ik}-j_{sa}}\ \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}^{(\boldsymbol{n}+j_{sa}-s)}\ \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa} - n_s - {\Bbbk}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - {\Bbbk}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = {\Bbbk} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, {\Bbbk}_1, j_{sa}^{ik}, {\Bbbk}_2, j_{sa}, \cdots, {\Bbbk}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + {\Bbbk} \wedge$

${\Bbbk}_z: z = 3 \wedge {\Bbbk} = {\Bbbk}_1 + {\Bbbk}_2 + {\Bbbk}_3 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}^{ik}-D-s}^{\boldsymbol{n}+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+{\Bbbk}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+{\Bbbk}_2+{\Bbbk}_3-j_{ik}+1)}^{(n_i-j_{ik}-{\Bbbk}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+{\Bbbk}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-{\Bbbk}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-{\Bbbk}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(j_{sa}-j_{sa}^{ik})!}{(j_{sa}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\land\boldsymbol{l_s}=1\land\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\land$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\land j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\land$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\land j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\land$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\land\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\land\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\land$

$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1\land$

$D\geq\boldsymbol{n}<n\land I=\mathbb{k}>0\land$

$j_{sa}<j^{sa}-1\land j_{sa}^{ik}=j_{sa}-1\land j_{sa}^{s}=j_{sa}^{ik}-1\land$

$\boldsymbol{s}\colon\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j_{sa}^{i}\}\land$

$s\geq 4\land\boldsymbol{s}=s+\mathbb{k}\land$

$\mathbb{k}_z\colon z=3\land\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{n}+j_{sa}^{ik}-s}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}\ \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-\boldsymbol{l_i})!\cdot(\boldsymbol{l_i}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_i} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} \geq \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa}^{i} - 1 \wedge j_{sa} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \ldots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{n}+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j^{ik}_{sa})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j^{ik}_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j^{s}_{sa} + 1 \wedge j_s + j^{ik}_{sa} - 1 \leq j_{ik} \leq j^{sa} + j^{ik}_{sa} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j^{ik}_{sa} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j^{ik}_{sa} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa} - j^{ik}_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + j_{sa} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_s - 1 \wedge j^{ik}_{sa} = j_{sa} - 1 \wedge j^{s}_{sa} = j^{ik}_{sa} - 1 \wedge$

$\boldsymbol{s}: \{j^{s}_{sa}, \Bbbk_1, j^{ik}_{sa}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j^{i}_{sa}\} \wedge$

$s \geq 1 \wedge S = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_{sa}} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}^{(\boldsymbol{l_{ik}}+j_{sa}-j_{sa}^{ik})} \sum_{n_{is}=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa},\text{[illegible]}} = \sum_{\text{[illegible]}}^{\text{[illegible]}} \sum_{\text{[illegible]}=1)}^{(\text{[illegible]})}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}\text{[illegible]}^{ik}-D-j_{sa}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}} \sum_{\text{[illegible]}^{sa}=j_{ik}+j_{sa}\text{[illegible]}}^{(\text{[illegible]})} \sum_{\text{[illegible]}\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i\text{[illegible]}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_i\text{[illegible]}j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1}^{(\ )} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \land$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \land$

$D \geq \boldsymbol{n} < n \land I = \Bbbk > 0 \land$

$j_{sa} < j_{sa}^{i} - 1 \land j_{sa}^{ik} = j_{sa} - 1 \land j_{sa}^{s} = j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \land$

$s \geq 5 \land \boldsymbol{s} = s + \Bbbk \land$

$\Bbbk_z: z = 3 \land \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = 4 + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_s}+j_{sa}^{ik}-j_{ik}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_i - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - j_{sa} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s > 5 \wedge s = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}}\ \sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)}\ \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-j_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(\boldsymbol{l_{sa}}+j_{ik}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + \boldsymbol{l_s} - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\colon \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$ {}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ \ )} $$

$$ \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} $$

$$ \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)} $$

$$ \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=\boldsymbol{n}-j_i+1}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} $$

$$ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot $$

$$ \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot $$

$$ \frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot $$

$$ \frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot $$

$$ \frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot $$

$$ \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} $$

$((D > \boldsymbol{n}) < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_i} - s + 1 > \boldsymbol{l_s} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$f_{[illegible]}(j_s, j_{ik}, j^{sa}, j_i) = \sum_{k=1}^{[illegible]} \sum_{(j_s=1)}^{(\;)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{[illegible]} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, [illegible]\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3$ [illegible]

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\;)}\sum_{j_{ik}=j^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\;)}\sum_{j_i=s+1}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(\boldsymbol{l_i}+j_{sa}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\Bbbk>0\wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=s+1}^{\boldsymbol{l_i}} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j_{sa}^{i}\}\wedge$

$s\geq5\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-[illegible])!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot([illegible]-s)!}\right)$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}[illegible]}\sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})}\sum_{j_i=[illegible]}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=[illegible]\mathbb{k}}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2[illegible]j_{ik}+1)}^{([illegible]j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+[illegible]-j^{sa}+1}^{[illegible]+j_{ik}-j^{s[illegible]}}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{[illegible]}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq \boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq \boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j_{sa}^{i}\}\wedge$

$s\geq 5\wedge \boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=\text{[illegible]}}\sum_{(j^{sa}=j_{sa})}^{\text{[illegible]}}\sum_{j_i=s\text{[illegible]}}\right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\text{[illegible]}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}-\text{[illegible]}-j^{sa}+1}^{n_{ik}\text{[illegible]}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot
$$

$$
\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot
$$

$$
\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot
$$

$$
\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot
$$

$$
\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+
$$

$$
\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\sum_{j_i=s+1}^{\boldsymbol{l_i}}\right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$\sum_{n_{sa}=\mathbf{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)!\cdot(\mathbf{n}-j_i)!}\cdot$$

$$\frac{(\mathbf{l_i}-j^{ik}_{sa})!}{(\mathbf{l_{ik}}-1)!\cdot(\mathbf{l_i}-\mathbf{l_{ik}}-j^{ik}_{sa})!}\cdot$$

$$\left.\frac{(D-\mathbf{l_i})!}{(D+j_i-\mathbf{n}-\mathbf{l_i})!\cdot(\mathbf{n}-j_i)!}\right)$$

$D \geq \mathbf{n} < n \land \mathbf{l_s} = 1 \land \mathbf{l_i} \leq D + s - \mathbf{n} \land$

$1 \leq j_s \leq j_{ik} - j^{ik}_{sa} + 1 \land j_s + j^{ik}_{sa} - 1 \leq j_{ik} \leq j^{sa} + j^{ik}_{sa} - j_{sa} \land$

$j_{ik} + j_{sa} - j^{ik}_{sa} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \land$

$\mathbf{l_{ik}} - j^{ik}_{sa} + 1 > \mathbf{l_s} \land \mathbf{l_{sa}} + j^{ik}_{sa} - j_{sa} = \mathbf{l_{ik}} \land \mathbf{l_i} + j_{sa} - s > \mathbf{l_{sa}} \land$

$D \geq \mathbf{n} < n \land I = \Bbbk > 0 \land$

$j_{sa} < j^i_{sa} - 1 \land j^{ik}_{sa} = j_{sa} - 1 \land j^s_{sa} < j^{ik}_{sa} - 1 \land$

$\mathbf{s}: \{j^s_{sa}, \Bbbk_1, j^{ik}_{sa}, \Bbbk_2, j_{sa}, \Bbbk_3, j^i_{sa}\} \land$

$s \geq 5 \land \mathbf{s} = s + \Bbbk \land$

$\Bbbk_z: z = 3 \land \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j^{ik}_{sa}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\mathbf{n}+\Bbbk}^{n} \sum_{(n_{ik}=\mathbf{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\text{[illegible]})!}{(D\text{[illegible]}s-\text{[illegible]}\boldsymbol{l}\text{[illegible]})!\cdot(\text{[illegible]}\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}^{\text{[illegible]}}\ \sum_{(j_s=1)}^{\text{[illegible]}}\ \sum_{j_{ik}=\text{[illegible]}+j_{sa}^{ik}-j_{sa}}^{\text{[illegible]}}\ \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})}\ \sum_{j_i=s+1}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{\text{[illegible]}}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\colon \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z\colon z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,[illegible],j^{sa},j_i} = \left(\sum_{k=1}^{[illegible]} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{[illegible]} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}^{[illegible]}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{[illegible]} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\,)}\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\,)}\sum_{j_i=s+1}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$\Big((D \geq n < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \vee$

$(D \geq n < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_i} - s + 1 > \boldsymbol{l_s} \wedge$

$\boldsymbol{l_i} \le D + s - \boldsymbol{n})\big) \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\colon \left\{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \ge 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z\colon z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!}\right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=s+1}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\;\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-\text{[illegible]}-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-\text{[illegible]})!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_i}\text{[illegible]}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}\text{[illegible]})!\cdot(\text{[illegible]}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_s}+j_{sa}^{ik}-\text{[illegible]}-j_{sa})!}{(j_{i\cdot}+\boldsymbol{l_{sa}}-j^{sa}-\text{[illegible]})!\cdot(j^{sa}\text{[illegible]}j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+\text{[illegible]}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\text{[illegible]}-j_i-\boldsymbol{l}\text{[illegible]})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = \text{[illegible]} \wedge \boldsymbol{l_i} \leq D + s - \text{[illegible]} \wedge$

$\text{[illegible]} j_s \leq j_{ik} \text{[illegible]} + 1 \wedge \text{[illegible]} + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} \text{[illegible]} j_{sa} - j_{sa}^{ik} \leq \text{[illegible]} \leq j_i + \text{[illegible]} \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa} \text{[illegible]} 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} \text{[illegible]} j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge \text{[illegible]} = \Bbbk > \text{[illegible]} \wedge$

$j_{s\cdot} \text{[illegible]} j_{sa}^{\cdot} \text{[illegible]} 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, \text{[illegible]}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 3 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}\;\sum_{(j_s=1)}^{(\;)}\;\sum_{j_{ik}=j_{sa}^{ik}}\;\sum_{(j^{sa}=j_{sa})}^{(\;)}\;\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D-s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{\dots=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=j^{sa}+s-j_{sa}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j_{sa}^{i}\right\}\wedge$

$s\geq5\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

${}_{fz}S_{j_s}$ [illegible] $_{j^{sa},j_i}$ $$\left(\sum_{k=1}\sum_{(j_s=1)}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\mathbf{n}-\boldsymbol{l_i})!\cdot(\mathbf{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_{sa}})}\sum_{j_i=j^{sa}+s-j_{sa}}\right.$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-1)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)!\cdot(\mathbf{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\mathbf{n}-\boldsymbol{l_i})!\cdot(\mathbf{n}-j_i)!}\right)$$

$D \geq \mathbf{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \mathbf{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=j^{sa}+s-j_{sa}} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_{ik}}}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}\sum_{j_i=j^{sa}+s-j_{sa}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+j^{sa}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3+j_i-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{[illegible]} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=s}^{[illegible]}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!}\right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=s+1}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_s}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + j_i - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D-s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(\boldsymbol{l_i} + j_{sa} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i - s)!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge s \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + \boldsymbol{l_s} - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z : z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = 4 + \Bbbk \wedge$

$\Bbbk_z; z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}^{()} \sum_{(j_s=1)}^{()} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{()} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}\text{[illegible]})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\text{[illegible]}-s)!}\right)$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}\text{[illegible]}+j_{sa}-s)}\sum_{j_i=\boldsymbol{l_i}+\text{[illegible]}}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\text{[illegible]}\mathbb{k}}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2\text{[illegible]}j_{ik}+1)}^{(\text{[illegible]}_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\text{[illegible]}-j^{sa}+1}^{\text{[illegible]}+j_{ik}-j^{s\text{[illegible]}}}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{\text{[illegible]}}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \land$$

$$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \land$$

$$D \geq \boldsymbol{n} < n \land I = \Bbbk > 0 \land$$

$$j_{sa} < j_{sa}^{i} - 1 \land j_{sa}^{ik} = j_{sa} - 1 \land j_{sa}^{s} = j_{sa}^{ik} - 1 \land$$

$$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \land$$

$$s \geq 5 \land \boldsymbol{s} = s + \Bbbk \land$$

$$\Bbbk_z: z = 3 \land \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=[illegible]} \sum_{(j^{sa}=j_{sa})}^{[illegible])} \sum_{j_i=[illegible]} \right.$$

$$\sum_{n_i=\boldsymbol{n}+[illegible]}^{n} \sum_{[illegible]_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{[illegible]}\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+[illegible]-j^{sa}+1}^{n_{ik}[illegible]-j^{sa}-\Bbbk_2[illegible]} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{[illegible]n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{([illegible]^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+j_s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j_{sa}^{i}\}\wedge$

$s\geq 5\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z: z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}\ \sum_{j_{ik}=j_{sa}^{ik}}\ \sum_{(j^{sa}=j_{sa})}^{(\ )}\ \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D-s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}^{(\ )}\ \sum_{(\ =1)}^{(\ )}\ \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}}\ \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\ \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

$\Big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_i} - s + 1 > \boldsymbol{l_s} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)\Big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa}^{i} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^{i}, \cdots, \mathbb{k}_3, j_{sa}\}$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{()} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{()} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\ldots)!}{(D\ldots s-\ldots\boldsymbol{l}_{\ldots})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k\ldots}\sum_{(j_s=1)}^{(\ \ )}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}\ldots}^{\boldsymbol{l_{ik}}}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})}\sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{\ldots}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} \right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)}\sum_{j_i=j^{sa}+s-j_{sa}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-\mathbb{k}_1-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_{ik}} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z\colon z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}^{(\ )} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \right.
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\text{[illegible]})!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\text{[illegible]}-j_{sa}^{ik})!}{(\text{[illegible]}-j_{ik})!\cdot(\text{[illegible]}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l}_i)!}{(\text{[illegible]}-\boldsymbol{n}-\text{[illegible]})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}<j_{sa}^{ik}-1\wedge j_{sa}^{ik}=j_{ik}-1\wedge j_{sa}^{s}=j_s+1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j_{sa}^{i}\}\wedge$

$s\geq 3\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{()}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{()}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - [illegible])!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! [illegible] (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{([illegible])!}{(D + s [illegible] \boldsymbol{n} - \boldsymbol{l_i})! [illegible])!}\Bigg) +$$

$$\Bigg(\sum_{[illegible]=1}^{[illegible]} \sum_{(j_s=1)}^{([illegible])}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{n}+j_{sa}^{ik}[illegible]} \sum_{(j^{sa}=[illegible]_{ik}+j_{sa}-j_{sa}^{ik})}^{[illegible]} \sum_{j_i=j^{sa}+s-j_{sa}}^{[illegible]}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{[illegible]} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=[illegible]} \sum_{(j_s=1)}^{[illegible]} \sum_{j_{ik}=[illegible]}^{[illegible]} \sum_{(j^{sa}=j_{sa})}^{[illegible]} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{[illegible]} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \ge \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_{ik}} \le D - \boldsymbol{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \le j_i \le \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$\dots < \boldsymbol{l_i} \le D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\colon \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)! \cdot (n_i-\mathbb{k}_1-n_{ik}-j_{ik}+1)!} \cdot
$$

$$
\frac{(n_{ik}-\mathbb{k}_2-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}-\mathbb{k}_2+j_{ik}-n_{sa}-j^{sa})!} \cdot
$$

$$
\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot
$$

$$
\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)! \cdot (\boldsymbol{n}-j_i)!} \cdot
$$

$$
\left. \frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})! \cdot (\boldsymbol{n}-s)!} \right) +
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(j_{sa}-j_{sa}^{ik})!}{(j_{sa}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge\Bbbk>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$Z=\left\{j_{sa}^{s},\Bbbk_1,j_{sa}^{ik},\Bbbk_2,j_{sa},\cdot,\Bbbk_3,j_{sa}^{i}\right\}\wedge$

$s\geq 5\wedge\boldsymbol{s}=s\wedge$

$\Bbbk_z: z=3\wedge\Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3\Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-[illegible])!}{(D[illegible]s-[illegible]\boldsymbol{l}_i)!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\;)}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l}_i[illegible]+j_{sa}^{ik}-D-s}^{\boldsymbol{n}+j[illegible]s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\;)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$$

$$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$$

$$D+j_{sa}-\boldsymbol{n}<\boldsymbol{l_{sa}}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1\wedge$$

$$D\geq\boldsymbol{n}<n\wedge I=\Bbbk>0\wedge$$

$$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$$

$$\boldsymbol{s}:\left\{j_{sa}^{s},\Bbbk_1,j_{sa}^{ik},\Bbbk_2,j_{sa},\cdots,\Bbbk_3,j_{sa}^{i}\right\}\wedge$$

$$s\geq 5\wedge\boldsymbol{s}=s+\Bbbk\wedge$$

$$\Bbbk_z:z=3\wedge\Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3$$

$$_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\;)}\right.$$

$$\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\;)}\sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\Bbbk_2)} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\left.\frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!}\right) +
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )}\right.
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}}
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-\boldsymbol{l_i})!\cdot(\boldsymbol{l_i}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_i}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}\geq\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+j_{sa}-\boldsymbol{n}<\boldsymbol{l_{sa}}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-s\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}<j_{ik}-1\wedge j_{sa}^{ik}=j_{ik}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\ldots,\mathbb{k}_3,j_{sa}^{i}\right\}\wedge$

$s\geq 3\wedge s_{\mathbb{k}}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\ldots)!}{(D+s-\ldots-\boldsymbol{l}\ldots)!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l}_{ik}+\boldsymbol{n}-D} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ldots)} \sum_{j_i=\boldsymbol{l}_{sa}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{\left(\boldsymbol{l_{ik}} - j_{ik}\right)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j\ \text{[illegible]})!} \Bigg)$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n}$ [illegible]

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \land$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} -$ [illegible] $\land$

$D \geq \boldsymbol{n} < n \land I = \Bbbk > 0 \land$

$j_{sa} < j_{sa}^{i} - 1 \land j_{sa}^{ik} = j_{sa} - 1 \land j_{sa}^{s} = j_s$ [illegible] $- 1 \land$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\right\} \land$

$s \geq 5 \land \boldsymbol{s} = s + \Bbbk \land$

$\Bbbk_z: z = 3 \land \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$fz\ \text{[illegible]}_{k,j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=[illegible]}^{(\ )}\right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}[illegible]}^{(\boldsymbol{n}+j_{sa}-s)}\ \sum_{[illegible]j^{sa}[illegible]-j_{sa}}$$

$$\sum_{n_i[illegible]}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+[illegible]+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}[illegible]+\mathbb{k}_3-j^{sa}[illegible]}^{n_{ik}+j[illegible]j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}[illegible]j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-[illegible])!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{([illegible]-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$[illegible] > \boldsymbol{n}[illegible] \wedge \boldsymbol{l_s}=1\wedge \boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq \boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$$

$$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$$

$$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$$

$$\boldsymbol{s}: \left\{ j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i} \right\} \wedge$$

$$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$$

$$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa}^{s})}^{(\ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j^{ik}_{sa})!}{(\boldsymbol{l_{ik}}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_s}-j^{ik}_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j^{ik}_{sa}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j^{ik}_{sa}-j_{ik}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j^{ik}_{s}+1 \wedge j_s+j^{ik}_{sa}-1 \leq j_{ik} \leq j^{sa}+j^{ik}_{sa}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j^{ik}_{sa} \leq j^{sa} \leq j_i+j_{sa}-s \wedge j^{sa}+s-j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}}-j^{ik}_{sa}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j^{ik}_{sa}-j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s = \boldsymbol{l_{sa}} \wedge$

$D+j_{sa}-\boldsymbol{n} < \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_i-1 \wedge j^{ik}_{sa} = j_{sa}-1 \wedge j^{s}_{sa} = j^{ik}_{sa}-1 \wedge$

$\boldsymbol{s}\colon \{j^{s}_{sa}, \mathbb{k}_1, j^{ik}_{sa}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j^{i}_{sa}\} \wedge$

$s \geq 5 \wedge S = s+\mathbb{k} \wedge$

$\mathbb{k}_z\colon z = 3 \wedge \mathbb{k} = \mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}\sum_{(j_s=1)}^{(\;)}\sum_{j_{ik}=j^{ik}_{sa}}\sum_{(j^{sa}=j_{sa})}^{(\;)}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)!\cdot(\mathbf{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\mathbf{n}-\boldsymbol{l_i})!\cdot(\mathbf{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=\mathbf{n}+j_{sa}^{ik}-D-j_{sa}}^{\mathbf{n}+j_s^{ik}-s}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}\sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+j_{sa}^{ik}-\boldsymbol{n}<\boldsymbol{l_{ik}}\leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j_{sa}^{i}\right\}\wedge$

$s\geq5\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$$fz_{j_s,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=[illegible]}^{(\ )} [illegible]\right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\ \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\ \sum_{j_i=[illegible]+s[illegible]-j_{sa}^{ik}}$$

$$\sum_{n_i[illegible]}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+[illegible]+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1[illegible]}$$

$$\sum_{n_{sa}[illegible]+\mathbb{k}_3-j^{s[illegible]}}^{n_{ik}+j[illegible]j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}[illegible]j_i-\mathbb{k}_3)}$$

$$\frac{([illegible]n_i-n_{ik}-1)!}{(j_{ik}-[illegible]\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j[illegible]-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{[illegible]j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$[illegible] > \boldsymbol{n}[illegible] \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \le D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \ge 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=\text{[illegible]})}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=\text{[illegible]})}^{(\text{[illegible]})} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\text{[illegible]}-j_{ik}+1)}^{(\text{[illegible]}-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\text{[illegible]}-\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-\text{[illegible]}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(\text{[illegible]}n_i-n_{ik}-1)!}{(\text{[illegible]})!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{s}\text{[illegible]}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa} - j_{sa}^{ik} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} > D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

j_{sa} [illegible] $-1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 1 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-\Bbbk_2-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(\boldsymbol{l_i}+j_{sa}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge I = 1 \wedge \boldsymbol{l_i} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_i} - s + 1 > 0 \wedge$

$\boldsymbol{l_i} \geq \boldsymbol{l_{sa}} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa}^{i} = j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-\text{[illegible]}}^{\boldsymbol{n}}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\text{[illegible]}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-\text{[illegible]}1}^{n_{ik}+j_{ik}-j^{sa}\text{[illegible]}} \sum_{(n_s=\boldsymbol{n}-j_i+\text{[illegible]})}^{\text{[illegible]}(n_{sa}+j^{s\text{[illegible]}}-j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i - n_{ik}\text{[illegible]}1)!}{(j_{ik}\text{[illegible]}2)! \cdot (\text{[illegible]}n_{ik}\text{[illegible]}j_{ik}+1)!} \cdot
$$

$$
\frac{(n_{ik} - \text{[illegible]}_{a} - 1)!}{(j^{sa} - j_{ik} - \text{[illegible]})! \cdot (n_{ik}\text{[illegible]}j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - \text{[illegible]} - \mathbb{k}_3 - 1)!}{(j_i - j\text{[illegible]} - 1)! \cdot (n\text{[illegible]} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} \right)
$$

$\text{[illegible]} > \boldsymbol{n}\ \text{[illegible]} \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \land$

$\boldsymbol{l_{ik}} > D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa},j_i} \text{[illegible]} \left(\sum_{k\text{[illegible]}}^{(\ )} \sum_{(\text{[illegible]}=1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik}=\text{[illegible]}+\boldsymbol{n}-D}^{\boldsymbol{n}+j_{sa}^{ik}-s} \; \sum_{(j^{\text{[illegible]}}=j_{ik}+j_{sa}-j_{sa}^{\text{[illegible]}})}^{(\ )} \; \sum_{\text{[illegible]}+s-j_{sa}}
$$

$$
\sum_{n_i=\text{[illegible]}+\mathbb{k}}^{n} \; \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{\text{[illegible]}}-j^{sa}-\mathbb{k}_2} \; \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} \right)
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \land$

$\boldsymbol{l_i} > D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \land$

$D \geq \boldsymbol{n} < n \land I = \Bbbk > 0 \land$

$j_{sa} < j_{sa}^i - 1 \land j_{sa}^{ik} = j_{sa} - 1 \land j_{sa}^s = j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \{j_{sa}^s, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^i\} \land$

$s \geq 5 \land \boldsymbol{s} = s + \Bbbk \land$

$\Bbbk_z: z = 3 \land \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$\sum_{[illegible] j_{ik}, j^{sa}, j_i} \left(\sum_{[illegible]=1}^{[illegible]} \sum_{(j_s=1)}^{([illegible]} \right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{[illegible]} \sum_{([illegible]^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{([illegible] j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{[illegible]}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{[illegible]} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} \right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{[illegible]}} = \sum_{k=1}^{[illegible]} \sum_{(j_s=[illegible])}^{[illegible]} \sum_{(j_{ik}=j_{sa}^{ik})}^{[illegible]} \sum_{(j^{sa}=j_{sa})}^{([illegible])} \sum_{j_i=s}^{[illegible]}$$

$$\sum_{n_i=[illegible]+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{([illegible]-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{[illegible]_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=\text{[illegible]})}^{(\ )} \sum_{\text{[illegible]}ik=j_{sa}^{ik}} \sum_{(j^{sa}=j_s\text{[illegible]})}^{(\text{[illegible]})} \sum_{\text{[illegible]}=s}^{\boldsymbol{l_i}}$$

$$\sum_{\text{[illegible]}\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}\text{[illegible]}-j_{ik}+1)}^{\text{[illegible]}-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}\text{[illegible]}_3-j^{sa}+1}^{\text{[illegible]}n_{ik}+j_{ik}-\text{[illegible]}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik}\text{[illegible]})! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{i}\text{[illegible]} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(\boldsymbol{l_i} + j_{sa} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D\text{[illegible]} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i} \right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k\text{[illegible]}} \sum_{(j_s=1)}^{(\;)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j\text{[illegible]}j_i+j_{sa}-s)}^{(\;)} \sum_{j_i=s\text{[illegible]}}^{\boldsymbol{l_i}} \sum_{n_i=\boldsymbol{n}+\Bbbk\text{[illegible]}}^{n} \sum_{\text{[illegible]}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{\text{[illegible]}j_{ik}\text{[illegible]}+1)} \sum_{n_{sa}=\boldsymbol{n}\text{[illegible]}_3-j^{sa}+1}^{n_{ik}+\text{[illegible]}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{\text{[illegible]}_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j\text{[illegible]}j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$$

$$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$$

$$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$$

$$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$_{fz}S_{j_{s}\text{[illegible]},j_{ik},j^{s}\text{[illegible]}} \text{[illegible]} \sum_{k\text{[illegible]}} \sum_{\text{[illegible]}=1)}^{(\ )}$$

$$\sum_{j_{ik}\text{[illegible]}} \sum_{(j^{sa}-\text{[illegible]})} \sum_{j_i=s}^{\boldsymbol{l_{sa}}+s-j_{s}\text{[illegible]}}$$

$$\sum_{n_{i}\text{[illegible]}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{i}\text{[illegible]}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{\text{[illegible]}(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{\text{[illegible]}j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq \boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq \boldsymbol{n}<n\wedge I=\Bbbk>0\wedge$

$j_{sa}=j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\cdots,\Bbbk_1,j_{sa}^{ik},\cdots,\Bbbk_2,j_{sa},\Bbbk_3,j_{sa}^{i}\}\wedge$

$s\geq 6\wedge \boldsymbol{s}=s+\Bbbk\wedge$

$\Bbbk_z:z=3\wedge \Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3\Rightarrow$

$${}_{fz}S_{j_s,\,,j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(j_i+j_{sa}-s)}\sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq \boldsymbol{n}<n\wedge \boldsymbol{l_s}=1\wedge \boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \land$$

$$D \geq \boldsymbol{n} < n \land I = \Bbbk > 0 \land$$

$$j_{sa} = j_{sa}^{i} - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} < j_{sa}^{ik} - 1 \land$$

$$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i} \right\} \land$$

$$s \geq 6 \land \boldsymbol{s} = s + \Bbbk \land$$

$$\Bbbk_z: z = 3 \land \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$$

$$\text{[illegible]}\, j_{ik}, j^{sa}, j_{\text{[illegible]}} = \sum_{\text{[illegible]}=1} \sum_{(j_s=1)}^{(\text{[illegible]})}$$

$$\sum_{j_{ik}\text{[illegible]}j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{\text{[illegible]}} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{\text{[illegible]}}} = \sum_{k=1}^{\text{[illegible]}} \sum_{(j_s=\text{[illegible]}}^{(\text{[illegible]}} \sum_{j_{ik}=j_{sa}^{ik}}^{\text{[illegible]}} \sum_{(j^{sa}=j_{sa})}^{(\text{[illegible]}\boldsymbol{l_{sa}})} \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\text{[illegible]}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(\text{[illegible]}-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{\text{[illegible]}_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=j^{sa}+s-j_{sa}}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\Bbbk>0\wedge$

$j_{sa}=j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\Bbbk_1,j_{sa}^{ik},\cdots,\Bbbk_2,j_{sa},\Bbbk_3,j_{sa}^{i}\right\}\wedge$

$s\geq 6\wedge\boldsymbol{s}=s+\Bbbk\wedge$

$\Bbbk_z:z=3\wedge\Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\ \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\ \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\right\}$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=s}^{\boldsymbol{l_{sa}}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}=j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\mathbb{k}_3,j_{sa}^{i}\}\wedge$

$s\geq 6\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z: z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\ \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\ \sum_{j_i=s}^{\boldsymbol{l_{ik}}+s-j_{sa}^{ik}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - [illegible])!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{([illegible] - j_{sa}^{ik})!}{([illegible] - j_{ik})! \cdot ([illegible] - j_{sa}^{ik})!} \cdot$$

$$\frac{([illegible] - \boldsymbol{l_i})!}{([illegible] - \boldsymbol{n} - [illegible])! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_s - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + [illegible] - j_{sa} \leq j_i \leq [illegible] \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} [illegible] j_{sa} [illegible] \wedge \boldsymbol{l_i} + [illegible] - s = [illegible] \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_s [illegible] < j_{sa}^{ik} - 1 [illegible]$

$\boldsymbol{s}\colon \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, [illegible], j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + [illegible] \wedge$

$\mathbb{k}_z\colon z [illegible] 3 \wedge \mathbb{k} = \mathbb{k}_1 + [illegible] + \mathbb{k}_3 [illegible]$

$$_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_i}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-\text{[illegible]})!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}\text{[illegible]})!\cdot(\text{[illegible]}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\text{[illegible]}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+\text{[illegible]}_{sa}-1\leq\text{[illegible]}\leq j^{\text{[illegible]}}\text{[illegible]}j_{sa}^{ik}-\text{[illegible]}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+\text{[illegible]}-s\wedge j^{sa}+\text{[illegible]}-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\text{[illegible]}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-\text{[illegible]}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l}\text{[illegible]}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\text{[illegible]}I=\mathbb{k}>\text{[illegible]}\wedge$

$j_{sa}=j_{sa}^{i}-1\wedge\text{[illegible]}<j_{sa}-\text{[illegible]}\wedge j_{s\text{[illegible]}}^{s}\text{[illegible]}j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{\text{[illegible]}},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\text{[illegible]}j_{sa},\mathbb{k}_3,j_{sa}^{i}\}\wedge$

$s\geq 6\wedge\boldsymbol{s}\text{[illegible]}+\mathbb{k}\wedge$

$\mathbb{k}_z;\text{[illegible]}\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i}=\sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\ \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})}\ \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa} - j_{sa}^{ik} = \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \land$

$D \geq \boldsymbol{n} < n \land I = \Bbbk > 0 \land$

$j_{sa} = j_{sa}^{i} - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} < j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}:\{j_s, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \land$

$s \geq 6 \land \boldsymbol{s} = s + \Bbbk \land$

$\Bbbk_2 \geq 0 \land \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{ik}}+j_{sa}-j_{sa}^{ik})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge I = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$ {}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ \ )} $$

$$ \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_i}+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ \ )} \sum_{j_i=j^{sa}+s-j\text{[illegible]}} $$

$$ \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\text{[illegible]}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} $$

$$ \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j\text{[illegible]}}^{n_{ik}+j_{ik}-j^{sa}\text{[illegible]}} \sum_{(n_s=\boldsymbol{n}-j_i+\text{[illegible]})}^{\text{[illegible]}+j^{s\text{[illegible]}}\text{[illegible]}-\mathbb{k}_3)} $$

$$ \frac{(n_i\text{[illegible]}n_{ik}-\mathbb{k}_1\text{[illegible]}1)!}{(j\text{[illegible]}-2)!\text{[illegible]}n_i-n_{ik}\text{[illegible]}\mathbb{k}_1+1)!} \cdot $$

$$ \frac{(\text{[illegible]}-n_{sa}\text{[illegible]}-1)!}{(j\text{[illegible]}-j_{ik}-1)!\cdot\text{[illegible]}+j_{ik}\text{[illegible]}_{sa}-j^{sa}-\mathbb{k}_2)!} \cdot $$

$$ \frac{(n\text{[illegible]}-n_s-1)!}{(\text{[illegible]}-j^{sa}-1\text{[illegible]}(n_{sa}+j^{sa}-n_s-j_i)!} \cdot $$

$$ \frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!} \cdot $$

$$ \frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!} \cdot $$

$$ \frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!} $$

$\text{[illegible]} \geq \boldsymbol{n} \text{[illegible]} \wedge \boldsymbol{l_s} = 1 \wedge \text{[illegible]} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j\text{[illegible]} \leq j_{ik} - \text{[illegible]} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} \text{[illegible]} j_{sa} \text{[illegible]} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\text{[illegible]} - j_{sa}^{ik} \text{[illegible]} > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$
{}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ \ )}
$$

$$
\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ \ )} \sum_{j_i=j^{sa}+s-j_{sa}}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_3+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$
\sum_{n_{sa}=[illegible]-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i - n_{ik} - \mathbb{k}_1)!}{(j_{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot
$$

$$
\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}
$$

$D \geq \boldsymbol{n} < n \wedge$ [illegible] 1 [illegible] $\leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=[illegible]a+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+[illegible]}^{n} \sum_{[illegible]=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-[illegible])}^{(n_i-j_{ik}-[illegible]1)}$$

$$\sum_{n_{sa}=[illegible]-j^{sa}+1}^{[illegible]j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{([illegible]+1)}^{[illegible]a+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{([illegible]n_i - n_{ik}[illegible]\mathbb{k}_1 - 1)!}{(j_{ik}-2)!\,[illegible]n_i - n_{ik}[illegible]j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{s}[illegible] - \mathbb{k}_2 - 1)!}{([illegible] - j_{ik} - [illegible])! \cdot (n_{[illegible]}\ j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{[illegible] - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

D [illegible] $\boldsymbol{n} <$ [illegible] $\wedge\, \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq$ [illegible] $- j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(\ )} \sum_{(j_s=\ldots)} \text{[illegible]}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}\ldots}^{\ldots} \text{[illegible]} \sum_{(j^{sa}=j\ldots)}^{(\ldots)} \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum^{n} \text{[illegible]} \sum_{\ldots+\mathbb{k}\ (n_{ik}=\ldots+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1\ldots)} \text{[illegible]}$$

$$\sum_{\ldots=\boldsymbol{n}+\mathbb{k}_3-j\ldots+1}^{n_{ik}\ldots-j^{sa}-\mathbb{k}_2\ldots} \text{[illegible]} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(\ldots-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i \ldots n_{ik} - \mathbb{k}_1 - 1)!}{(\ldots - 2)! \cdot (n\ldots - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n\ldots - \ldots_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j\ldots - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_{s[illegible]}, j_{ik}, j^{s[illegible]}, j_{[illegible]}} [illegible] \sum_{k[illegible]} \sum_{([illegible]=1)}^{(\ )}$$

$$\sum_{j_{ik}=j[illegible] j_{sa}^{ik} - j_{sa}} \sum_{[illegible]}^{([illegible] + j_{sa} - j_{sa}^{ik})} \sum_{j_i = s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i [illegible] + \mathbb{k}}^{n} \sum_{(n_{ik} = \boldsymbol{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)}$$

$$\sum_{n_{sa} = \boldsymbol{n} + \mathbb{k}_3 - j^{sa} + 1}^{n_{ik} + j_{i[illegible]} j^{sa} - \mathbb{k}_2} \sum_{(n_s = \boldsymbol{n} - j_i + 1)}^{(n_{sa} + j^{sa} - j_i - \mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{[illegible](j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{[illegible] j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$f_Z S(j_s, j_{ik}, j^{sa}, j_i) = \sum_{k=1}^{(\ )} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i} \right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$j_s \ , j_{ik}, j^{sa}, j_i = \sum_{k=1} \sum_{(j_s=1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\quad)} \sum_{j_i=j^{sa}+s-j_{sa}}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-[illegible])!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}$ [illegible] $\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}$ [illegible] $-s$ [illegible] $\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}=j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}$ [illegible] $1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},$ [illegible] $\}$

$s\geq 6\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3$

$${}_{fz}S_{j_s\;,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\;\;)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}}\;\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_i}+j_{sa}-s)}\;\sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\;\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\;\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{s} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}})}\ \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-\boldsymbol{l_i})!\cdot(\boldsymbol{l_i}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-1-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-1)!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} + 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\boldsymbol{s}: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{()} \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(\boldsymbol{l_{sa}} + j_{ik} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\Bbbk_z: z=3 \land \Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3 \Rightarrow$

$$ {}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\ )} $$

$$ \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}}\ \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\ \sum_{j_i=s}^{\boldsymbol{l_{sa}}+s-j_{sa}} $$

$$ \sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} $$

$$ \sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)} $$

$$ \frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot $$

$$ \frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot $$

$$ \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot $$

$$ \frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot $$

$$ \frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot $$

$$ \frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot $$

$$ \frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!} $$

$\big((D\geq \boldsymbol{n}<n\land \boldsymbol{l_s}=1\land \boldsymbol{l_i}\leq D+s-\boldsymbol{n}\land$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\land j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\land$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\land j^{sa}+s-j_{sa}\leq j_i\leq \boldsymbol{n}\land$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\land \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\land \boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}})\lor$

$(D\geq \boldsymbol{n}<n\land \boldsymbol{l_s}=1\land \boldsymbol{l_s}\leq D-\boldsymbol{n}+1\land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_i} - s + 1 > \boldsymbol{l_s} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n})\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{z}S_{j_s,j_{ik},j^{\text{[illegible]}}} = \sum_{k=1}^{\text{[illegible]}} \sum_{(j_s=\text{[illegible]})}^{\text{[illegible]}} \sum_{j_{ik}=j_{sa}^{ik}}^{(\boldsymbol{l_{ik}}\text{[illegible]})} \sum_{(j^{sa}=j_{sa})}^{(\text{[illegible]}_{sa})} \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\text{[illegible]}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(\text{[illegible]}-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{\text{[illegible]}_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}}\wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}=j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\mathbb{k}_3,j_{sa}^{i}\}\wedge$

$s\geq 6\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(\boldsymbol{l_i} + j_{sa} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \land$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \land$

$D \geq \boldsymbol{n} < n \land I = \mathbb{k} > 0 \land$

$j_{sa} = j_{sa}^{i} - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} < j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \land$

$s \geq 6 \land \boldsymbol{s} = s + \mathbb{k} \land$

$\mathbb{k}_z: z = 3 \land \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq \boldsymbol{n}<n\wedge \boldsymbol{l_s}=1\wedge \boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq \boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1\wedge$

$D\geq \boldsymbol{n}<n\wedge I=\Bbbk>0\wedge$

$j_{sa}=j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\Bbbk_1,j_{sa}^{ik},\cdots,\Bbbk_2,j_{sa},\Bbbk_3,j_{sa}^{i}\right\}\wedge$

$s\geq 6\wedge \boldsymbol{s}=s+\Bbbk\wedge$

$\Bbbk_z: z=3\wedge \Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3\Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_s} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\;\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

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$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}\geq\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+s-\boldsymbol{n}\geq\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\Bbbk>0\wedge$

$j_{sa}=j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}^{i}-1\wedge j_{sa}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\cdots,\Bbbk_1,j_{sa}^{ik},\cdots,\Bbbk_2,j_{sa},\Bbbk_3,j_{sa}^{i}\}\wedge$

$s\geq 4\wedge\boldsymbol{s}=s+\Bbbk\wedge$

$\Bbbk_z:z=3\wedge\Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\;)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}\;\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{n}+j_{sa}-s)}\;\sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{n} + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa} - j_{sa}^{ik} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + j_{sa} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa}^{i} = j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\;)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \ge \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \le D - \boldsymbol{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \le j_i \le \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_{sa}} < \boldsymbol{l_i} \le D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \land \boldsymbol{s} = s + \Bbbk \land$

$\Bbbk_z : z = 3 \land \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1}^{()} \sum_{(j_s=1)}^{()}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{()} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk-j_s+1}^{n} \sum_{n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\Bbbk_2)} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \land$

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$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \land$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \land$

$D \geq \boldsymbol{n} < n \land I = \Bbbk > 0 \land$

$j_{sa} = j^{i}_{sa} - 1 \wedge j^{ik}_{sa} < j_{sa} - 1 \wedge j^{s}_{sa} < j^{ik}_{sa} - 1 \wedge$

$\boldsymbol{s}: \{j^{s}_{sa}, \cdots, \Bbbk_1, j^{ik}_{sa}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j^{i}_{sa}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\;)} \sum_{j_{ik}=j^{sa}+j^{ik}_{sa}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\;)} \sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-j_{sa}}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=n_i-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} \sum_{n_{sa}=\boldsymbol{n}+j_{sa}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j^{ik}_{sa})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j^{ik}_{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j^{ik}_{sa} + 1 \wedge j_s + j^{ik}_{sa} - 1 \leq j_{ik} \leq j^{sa} + j^{ik}_{sa} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j^{ik}_{sa} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j^{ik}_{sa} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j^{ik}_{sa} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\colon \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z\colon z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{s}[illegible]} = \sum_{k[illegible]} \sum_{[illegible]=1)}^{(\ )}$$

$$\sum_{j_{ik}-[illegible]^{a}+j^{ik}-j_{sa}} \sum_{(j^{s}[illegible]+j_{sa}-[illegible])}^{(\ )} \sum_{[illegible]-D-j_{sa}^{ik}}^{\boldsymbol{n}}$$

$$\sum_{n_{[illegible]}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{i}[illegible]^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$[illegible] \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{[illegible] j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$[illegible] \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{[illegible]^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq \boldsymbol{n}\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$$

$$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1\wedge$$

$$D\geq \boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$$

$$j_{sa}=j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$$

$$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\mathbb{k}_3,j_{sa}^{i}\right\}\wedge$$

$$s\geq 6\wedge \boldsymbol{s}=s+\mathbb{k}\wedge$$

$$\mathbb{k}_z:z=3\wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$$

$$\text{[illegible]}S_{j_{ik},j^{sa},j_i}=\sum_{\text{[illegible]}=1}^{\text{[illegible]}}\sum_{(j_s=1)}^{(\text{[illegible]}}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{\text{[illegible]}}\sum_{(j^{sa}=\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+\text{[illegible]}-s)}\sum_{j_i=j^{sa}+s-j_{sa}}^{\text{[illegible]}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{\text{[illegible]}}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

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$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{[illegible]}^{sa},j_i} = \sum_{k=1}^{[illegible]} \sum_{(j_s=1)}^{(\;)}$$

$$\sum_{[illegible]=j^{sa}+j_{sa}-[illegible]}^{[illegible]} \sum_{([illegible]^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{([illegible]+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j^{ik}_{sa})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j^{ik}_{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

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$j_{ik} + j_{sa} - j^{ik}_{sa} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j^{ik}_{sa} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j^{ik}_{sa} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

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$\boldsymbol{s}: \{j^{s}_{sa}, \cdots, \Bbbk_1, j^{ik}_{sa}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j^{i}_{sa}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

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$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j^{sa}+j^{ik}_{sa}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j^{ik}_{sa})}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

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$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

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$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}^{ik}-D-s}^{\boldsymbol{n}+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - [illegible])!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{([illegible] - j_{sa}^{ik})!}{([illegible] - j_{ik})! \cdot ([illegible] j_{sa}^{ik})!} \cdot$$

$$\frac{([illegible] - \boldsymbol{l_i})!}{([illegible] j_i - \boldsymbol{n} - [illegible])! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_s - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} [illegible] - j_{sa} \leq j_i \leq [illegible] \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} [illegible] j_{sa} [illegible] \wedge \boldsymbol{l_i} + [illegible] - s = [illegible] \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + [illegible] - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = [illegible] - 1 \wedge j_{sa}^{ik} < [illegible] - 1 \wedge j_{sa}^{s} < [illegible] \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{[illegible]}, \cdots, \mathbb{k}_2, j_{sa}^{[illegible]}, \mathbb{k}_3, j_{sa}^{i}\}$

$s \geq [illegible] \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1}^{(\ )} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{n}+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - [illegible])! \cdot ([illegible] - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \ge \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \le D - \boldsymbol{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \le j_i \le \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_i} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} \le \boldsymbol{l_i} \le D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa}^{i} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \ge 3 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{n}+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{s} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa} - j_{sa}^{ik} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} > j_s - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 3 \wedge S = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3+1)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_{sa}} + s - j_{sa} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}^{(\boldsymbol{l_{ik}}+j_{sa}-j_{sa}^{ik})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \le D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \ge 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{\text{[illegible]}}} = \sum_{\text{[illegible]}} \sum_{\text{[illegible]}=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}\text{[illegible]}^{ik}-D-j_{sa}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}} \sum_{\text{[illegible]}=j_{ik}+j_{sa}\text{[illegible]}}^{(\ )} \sum_{\text{[illegible]}\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i\text{[illegible]}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_i\text{[illegible]}j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{\text{[illegible]}(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{\text{[illegible]}(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \land$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \land$

$D \geq \boldsymbol{n} < n \land I = \mathbb{k} > 0 \land$

$j_{sa} = j_{sa}^{i} - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} < j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \land$

$s \geq 6 \land \boldsymbol{s} = s + \mathbb{k} \land$

$\mathbb{k}_z: z = 3 \land \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}}\wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}=j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\mathbb{k}_3,j_{sa}^{i}\right\}$

$s>6\wedge\boldsymbol{s}=4+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\sum_{k=1}^{()}\sum_{(j_s=1)}^{()}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{()}\sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + \boldsymbol{l_s} - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$\boldsymbol{s} > 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}}\ \sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)}\ \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\ \sum_{(n_s=n_{sa}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge$ [illegible] $\leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

[illegible] $< \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\colon \left\{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z : z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1}^{(\ )} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk-j_i+1}^{n} \sum_{n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\Bbbk_2)} \sum_{n_s=\boldsymbol{n}-j_i+1}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_i} - s + 1 > \boldsymbol{l_s} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$f_Z(j_s, j_{ik}, j^{sa}, j_i) = \sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - \text{[illegible]})!} \cdot$$

$$\frac{(D - \text{[illegible]})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa}$ [illegible] $\wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} +$ [illegible] $- s >$ [illegible] $\wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik}$ [illegible] $\wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa},$ [illegible] $j_{sa}\}$ [illegible]

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3$ [illegible]

$$_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s\text{[illegible]})!}\right)+$$

$$\left(\sum_{k=1}^{(\ )}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j^{ik}\text{[illegible]}}\sum_{(j^{sa}=j_{sa}\text{[illegible]}}^{(\ )}\sum_{j_i=s+1}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n\text{[illegible]}}\sum_{(n_{ik}\text{[illegible]}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}\text{[illegible]})}$$

$$\sum_{\text{[illegible]}a=\boldsymbol{n}+\mathbb{k}_3\text{[illegible]}+1}^{n_i\text{[illegible]}j_{ik}-\text{[illegible]}}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}\text{[illegible]}sa-j_i-\mathbb{k}_3)}$$

$$\frac{(n\text{[illegible]}-n_{ik}-\text{[illegible]}-1)!}{(j_{ik}-2)!\cdot(\text{[illegible]}-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(\text{[illegible]}-n\text{[illegible]}-\mathbb{k}_2-1)!}{(j^{sa}-\text{[illegible]}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(\boldsymbol{l_i}+j_{sa}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n$ [illegible] $\boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D+s-\boldsymbol{n} \wedge$

1 [illegible] $j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\colon \left\{ j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i} \right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z\colon z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right. $$

$$ \sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} $$

$$ \sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)} $$

$$ \frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot $$

$$ \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot $$

$$ \frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot $$

$$ \left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) + $$

$$ \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=s+1}^{\boldsymbol{l_i}} \right. $$

$$ \sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} $$

$$ \sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)} $$

$$ \frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot $$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\Bbbk>0\wedge$

$j_{sa}=j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}\colon\{j_{sa}^{s},\cdots,\Bbbk_1,j_{sa}^{ik},\cdots,\Bbbk_2,j_{sa},\Bbbk_3,j_{sa}^{i}\}\wedge$

$s\geq 6\wedge\boldsymbol{s}=s+\Bbbk\wedge$

$\Bbbk,z=3\wedge\Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3\Rightarrow$

$${}_{fz}S_{j_s,\,,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - \text{[illegible]})!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\text{[illegible]} - s)!}\right)$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}\text{[illegible]}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\text{[illegible]}}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=\text{[illegible]}\mathbb{k}}^{\text{[illegible]}} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2\text{[illegible]}j_{ik}+1)}^{(\text{[illegible]}j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\text{[illegible]}-j^{sa}+1}^{\text{[illegible]}+j_{ik}-j^{s\text{[illegible]}}} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(\text{[illegible]} n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - \text{[illegible]} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq j_i+j_{sa}-s \wedge j^{sa}+s-j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s+\Bbbk \wedge$

$\Bbbk_z: z=3 \wedge \Bbbk = \Bbbk_1+\Bbbk_2+\Bbbk_3 \Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{()} \sum_{j_{ik}=\cdots} \sum_{(j^{sa}=j_{sa})}^{()} \sum_{j_i=s\cdots} \right. $$

$$ \sum_{n_i=\boldsymbol{n}+\cdots}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} $$

$$ \sum_{n_{sa}=\boldsymbol{n}\cdots-j^{sa}+1}^{n_{ik}\cdots-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)} $$

$$ \frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)! \cdot (n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!} \cdot $$

$$ \frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!} \cdot $$

$$ \frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)! \cdot (n_{sa}+j^{sa}-n_s-j_i)!} \cdot $$

$$ \frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)! \cdot (\boldsymbol{n}-j_i)!} \cdot $$

$$ \left. \frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})! \cdot (\boldsymbol{n}-s)!} \right) + $$

$$ \left(\sum_{k=1} \sum_{(j_s=1)}^{()} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{()} \sum_{j_i=s+1}^{\boldsymbol{l_i}} \right. $$

$$ \sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} $$

$$\sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)!\cdot(\mathbf{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_i}-j^{ik}_{sa})!}{(\boldsymbol{l_{ik}}\text{[illegible]})!\cdot(\text{[illegible]}k-j^{ik}_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\mathbf{n}-\boldsymbol{l_i})!\cdot(\mathbf{n}-j_i)!}\right)$$

$D \geq \mathbf{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \mathbf{n} \wedge$

$1 \leq j_s \leq j_{ik} - j^{ik}_{sa} + 1 \wedge j_s + j^{ik}_{sa} - 1 \leq j_{ik} \leq j^{sa} - j_{sa} + j^{ik}_{sa} \wedge$

$j_{ik} + j_{sa} - j^{ik}_{sa} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$

$\boldsymbol{l_{ik}} - j^{ik}_{sa} + 1 > \boldsymbol{l_i} \wedge \boldsymbol{l_{sa}} + j^{ik}_{sa} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j^i_{sa} - 1 \wedge j_s \text{[illegible]} < j_{sa} - \text{[illegible]} \wedge j^s_{sa} \text{[illegible]} j^{ik}_{sa} - 1 \wedge$

$\mathbf{s}: \{j^s_{sa}, \cdots, \mathbb{k}_1, j^{ik}_{sa}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j^i_{sa}\} \wedge$

$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j^{ik}_{sa}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-[illegible])!}{(D+s-[illegible]\boldsymbol{l}_{\boldsymbol{i}})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}^{[illegible]} \sum_{(j_s=1)}^{([illegible])} \sum_{j_{ik}=[illegible]+j_{sa}^{ik}-j_{sa}}^{[illegible]} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=s+1}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{[illegible]} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \land$

$D \geq \boldsymbol{n} < n \land I = \Bbbk > 0 \land$

$j_{sa} = j_{sa}^{i} - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} < j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}\colon \left\{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\right\} \land$

$s \geq 6 \land \boldsymbol{s} = s + \Bbbk \land$

$\Bbbk_z\colon z = 3 \land \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s \text{[illegible]} j^{sa},j_i} = \left(\sum_{k=1} \sum_{(\text{[illegible]}1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\sum_{j_i=s+1}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_i} - s + 1 > \boldsymbol{l_s} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n})\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=[illegible])}^{(\ )} \sum_{[illegible]=j_{sa}^{ik}} \sum_{(j^{sa}=[illegible])}^{(\ [illegible])} \sum_{[illegible]=s} \right.$$

$$\sum_{[illegible]+\mathbb{k}}^{n} \sum_{(n_{ik}[illegible]j_{ik}+1)}^{[illegible]-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=[illegible]-j^{sa}+1}^{[illegible]_{ik}+j_{ik}-[illegible]\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - [illegible]_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} [illegible])! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{[illegible]} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!}\right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=s+1}^{\boldsymbol{l_i}} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \land$

$D \geq \boldsymbol{n} < n \land \mathbb{I} = \Bbbk > 0 \land$

$j_{sa}^{i} - j_{sa}^{s} > 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} < j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \land$

$s \geq 6 \land \boldsymbol{s} = s + \Bbbk \land$

$\Bbbk_z: z = 3 \land \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D-s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=j^{sa}+s-j_{sa}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}=j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\mathbb{k}_3,j_{sa}^{i}\right\}\wedge$

$s\geq 6\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s \cdots j^{sa},j_i} \cdots \left(\sum_{k=1}\sum_{(j_s=1)}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\;)}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\;\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\;\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_{sa}})}\sum_{j_i=j^{sa}+s-j_{sa}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$
{}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=j^{sa}+s-j_{sa}} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \land$

$D \geq \boldsymbol{n} < n \land I = \Bbbk > 0 \land$

$j_{sa} = j_{sa}^i - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^s < j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \left\{j_{sa}^s, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^i\right\} \land$

$s \geq 6 \land \boldsymbol{s} = s + \Bbbk \land$

$\Bbbk_z = 3 \land \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_{ik}}}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}\sum_{j_i=j^{sa}+s-j_{sa}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+k}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+j^{sa}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+j_i-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$$

$$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$$

$$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$$

$$\boldsymbol{s}\colon \left\{ j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i} \right\} \wedge$$

$$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$$

$$\Bbbk_z\colon z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=s+1}^{\boldsymbol{l_i}} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}\cdots)!\cdot(\cdots-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}}\wedge$

$D+\boldsymbol{l_s}-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}=j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\mathbb{k}_3,j_{sa}^{i}\}\wedge$

$s\geq 6\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(\ldots-\boldsymbol{l_i})!}{(D\ldots s-\boldsymbol{n}-\ldots_i)!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}^{[illegible]} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(\boldsymbol{l_i}+j_{sa}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}=j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\mathbb{k}_3,j_{sa}^{i}\right\}\wedge$

$s\geq 6\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\mathbf{l_i})!}{(D+s-\mathbf{n}-\mathbf{l_i})!\cdot(\mathbf{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\sum_{j_i=\mathbf{l_i}+\mathbf{n}-D}^{\mathbf{n}}\right.$$

$$\sum_{n_i=\mathbf{n}+\Bbbk}^{n}\sum_{(n_{ik}=\mathbf{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\mathbf{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)!\cdot(\mathbf{n}-j_i)!}\cdot$$

$$\frac{\left(\mathbf{l_{sa}}+j_{sa}^{ik}-\mathbf{l_{ik}}-j_{sa}\right)!}{\left(\mathbf{l_{sa}}+j_{sa}^{ik}-j^{sa}-\mathbf{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\mathbf{l_i})!}{(D+j_i-\mathbf{n}-\mathbf{l_i})!\cdot(\mathbf{n}-j_i)!}\right)$$

$D \ge \mathbf{n} < n \wedge \mathbf{l_s} = 1 \wedge \mathbf{l_{ik}} \le D - \mathbf{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \le j_i \le \mathbf{n} \wedge$

$\mathbf{l_{ik}} - j_{sa}^{ik} + 1 = \mathbf{l_s} \wedge \mathbf{l_{sa}} + j_{sa}^{ik} - j_{sa} > \mathbf{l_{ik}} \wedge \mathbf{l_i} + j_{sa} - s > \mathbf{l_{sa}} \wedge$

$D + s - \mathbf{n} < \mathbf{l_i} \le D + \mathbf{l_s} + s - \mathbf{n} - 1 \wedge$

$D \ge \mathbf{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\mathbf{s}: \left\{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z : z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot (j^{sa} - j_{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=\cdots+j_{sa}-s)}\sum_{j_i=\boldsymbol{l_i}+\cdots}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\cdots\mathbb{k}}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2\cdots j_{ik}+1)}^{(\cdots j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\cdots-j^{sa}+1}^{\cdots+j_{ik}-j^{s\cdots}}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_{\cdots}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-\cdots-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=\text{[illegible]}} \sum_{(j^{sa}=j_{sa})} \sum_{j_i=\text{[illegible]}} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\text{[illegible]}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\text{[illegible]}-j^{sa}+1}^{n_{ik}\text{[illegible]}-j^{sa}-\Bbbk_2\text{[illegible]}} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{\text{[illegible]}_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(\text{[illegible]}_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot
$$

$$
\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + \boldsymbol{l_s} - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}\ \sum_{j_{ik}=j_{sa}^{ik}}\ \sum_{(j^{sa}=j_{sa})}^{(\ )}\ \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(\boldsymbol{n}-\boldsymbol{l_i})!}{(D-s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1} \sum_{(s=1)} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_i} - s + 1 > \boldsymbol{l_s} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_s = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa}^{i} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\colon \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3\} \wedge$

$s \geq 6 \wedge I = s + \mathbb{k} \wedge$

$\mathbb{k}_z\colon z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{()} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{()} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\cdots)!}{(D+s-\cdots\boldsymbol{l}_{\cdots})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k\cdots} \sum_{(j_s=1)}^{(\ \ )} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}\cdots}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{\cdots} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)}\sum_{j_i=j^{sa}+s-j_{sa}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge s \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + \boldsymbol{l_s} - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - \text{[illegible]})!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\text{[illegible]} - j_{sa}^{ik})!}{(\text{[illegible]} - j_{ik})! \cdot (\text{[illegible]} - j_{sa}^{ik})!} \cdot$$

$$\left.\frac{(\text{[illegible]} - \boldsymbol{l_i})!}{(\text{[illegible]} - \boldsymbol{n} - \text{[illegible]})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + \text{[illegible]} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + \text{[illegible]} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + \text{[illegible]} - j_{sa} \leq j_i \leq \text{[illegible]} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + \text{[illegible]} - j_{sa} = \text{[illegible]} \wedge \boldsymbol{l_i} + \text{[illegible]} - s = \text{[illegible]} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + \text{[illegible]} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa} - \text{[illegible]} \wedge j_{sa}^{ik} < \text{[illegible]} - 1 \wedge j_{sa}^{s} < \text{[illegible]} 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa} \text{[illegible]}, \mathbb{k}_2, j_{s} \text{[illegible]} \mathbb{k}_3, j_{s}^{i} \text{[illegible]}$

$s \geq \text{[illegible]} \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \text{[illegible]} = \mathbb{k}_1 + \text{[illegible]} + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - \text{[illegible]})!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\text{[illegible]} - \boldsymbol{l}_{\text{[illegible]}})!}{(D + s \text{[illegible]} \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\text{[illegible]} s)!}\Bigg) +$$

$$\text{[illegible]}\Bigg(\sum_{\text{[illegible]}=1} \sum_{(j_s=1)}^{(\text{[illegible]})}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{n}+j_{sa}^{\text{[illegible]}}} \sum_{(j^{s\text{[illegible]}}=j_{ik}+j_{sa}-j_{sa}^{ik})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^s, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^i\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=\text{[illegible]}}^{\text{[illegible]}} \sum_{(j_s=1)}^{\text{[illegible]}} \sum_{j_{ik}=\text{[illegible]}}^{\text{[illegible]}} \sum_{(j^{sa}=j_{sa})}^{\text{[illegible]}} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{\text{[illegible]}} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}\sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$1\leq\boldsymbol{l_{ik}}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}=j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\mathbb{k}_3,j_{sa}^{i}\}\wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$
{}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
\frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!}\right) +
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )}
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s \ldots)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\ldots - j_{sa}^{ik})!}{(\ldots - j_{ik})! \cdot (\ldots j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - \ldots)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \ldots)! \cdot (j^{sa} + j_{sa} \ldots j_{ik} - j_{sa})!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} \right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + \ldots j_{ik} \leq \ldots + j_{sa}^{ik} - \ldots \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i \ldots_{sa} - s \wedge j^{sa} + \ldots - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - \ldots = \boldsymbol{l_{ik}} \wedge \boldsymbol{l} \ldots j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + \ldots \boldsymbol{n} < \boldsymbol{l_i} \leq \ldots \boldsymbol{l_s} + s - \boldsymbol{n} - \ldots$

$D \geq \boldsymbol{n} < n \wedge \ldots \mathbb{k} > 0 \ldots$

$j_{sa} \ldots j_{sa}^{i} - 1 \wedge j_{sa}^{ik} \ldots_{sa} - 1 \wedge \ldots_{sa} < j_{sa}^{ik} - 1 \wedge$

$\ldots \{j_{sa}^{s}, \ldots, j_{sa}^{ik}, \cdots, \mathbb{k}_2 \ldots_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s$

$\mathbb{k}_z: z = 3 \ldots \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-s)!}{(D+[illegible]-s-[illegible]\boldsymbol{l}_i)!\cdot([illegible]\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}^{[illegible]} \sum_{(j_s=1)}^{(\;)}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l}_i[illegible]+j_{sa}^{ik}-D-s}^{\boldsymbol{n}+j_{sa}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\;)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} \right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j^{sa}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq j_i+j_{sa}-s \wedge j^{sa}+s-j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s = \boldsymbol{l_{sa}} \wedge$

$D+j_{sa}-\boldsymbol{n} < \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{()} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{()} \sum_{j_i=s}\right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot
$$

$$
\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot
$$

$$
\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot
$$

$$
\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot
$$

$$
\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{()}\right.
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{()} \sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}}
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - \text{[illegible]})!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} \text{[illegible]})! \cdot (\text{[illegible]} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} \Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s$ [illegible] $j_{sa}^{ik} - 1 \leq$ [illegible] $\leq j^{s}$ [illegible] j^{ik} [illegible] $_{a} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i +$ [illegible] $- s \wedge j^{sa} +$ [illegible] $- j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 >$ [illegible] $\wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa}$ [illegible] $\boldsymbol{l_{ik}} \wedge \boldsymbol{l}$ [illegible] $- j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} -$ [illegible] $\boldsymbol{l_{sa}} \leq$ [illegible] $+ \boldsymbol{l_s} + j_{sa} - \boldsymbol{n}$ [illegible] $\wedge$

$D \geq \boldsymbol{n} < n \wedge I -$ [illegible] $> 0 \wedge$

$j_{sa} =$ [illegible] $- 1 \wedge j_{sa}^{ik} <$ [illegible] $- 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots,$ [illegible] $j_{sa}^{ik}, \cdots, \Bbbk$ [illegible] $_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq$ [illegible] $= s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge$ [illegible] $= \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \Bigg(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-\text{[illegible]})!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\text{[illegible]})!}{(D\text{[illegible]}s-\text{[illegible]}\boldsymbol{L})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}^{\text{[illegible]}} \sum_{(j_s=1)}^{(\text{[illegible]})}\right.$$

$$\sum_{j_{ik}=\text{[illegible]}+\boldsymbol{n}-D}^{\text{[illegible]}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\text{[illegible]})} \sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$fz\mathfrak{S}_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}^{(\text{[illegible]})}\sum_{(j_s=\text{[illegible]})}\right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}\text{[illegible]})}^{(\boldsymbol{n}+j_{sa}-s)}\ \sum_{\text{[illegible]}j^{sa}\text{[illegible]}-j_{sa}}$$

$$\sum_{n_i\text{[illegible]}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\text{[illegible]}+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}\text{[illegible]}+\mathbb{k}_3-j^{sa}\text{[illegible]}}^{n_{ik}+\text{[illegible]}j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}\text{[illegible]}j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(\text{[illegible]}-2)!\cdot(\text{[illegible]}-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j\text{[illegible]}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$\text{[illegible]}>\boldsymbol{n}\text{[illegible]}\land\boldsymbol{l_s}=1\land\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\land$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\land j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\land$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\land j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\land$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\land\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\land\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\land$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i} \right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z : z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right. $$

$$ \sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} $$

$$ \sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)} $$

$$ \frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot $$

$$ \frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot $$

$$ \frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot $$

$$ \left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) + $$

$$ \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \right. $$

$$ \sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} $$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_s}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge S = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-\ldots)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\ldots-j_i)!}\cdot$$

$$\left.\frac{(\ldots-\boldsymbol{l}_i)!}{(D-s-\boldsymbol{n}-\boldsymbol{l}_i)!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=\ldots\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{n}+j_s^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+j_{sa}^{ik}-\boldsymbol{n}<\boldsymbol{l_{ik}}\leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}=j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\mathbb{k}_3,j_{sa}^{i}\right\}\wedge$

$s\geq 6\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$$fz_{[illegible],j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=\text{[illegible]})}^{(\;)}\right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\;\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\;)}\;\sum_{j_i=\text{[illegible]}+s-\text{[illegible]}-j_{sa}^{ik}}$$

$$\sum_{n_i=\text{[illegible]}}^{n}\;\sum_{(n_{ik}=\boldsymbol{n}+\text{[illegible]}+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\text{[illegible]}+\mathbb{k}_3-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\;\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+\text{[illegible]}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(\text{[illegible]}-2)!\cdot(\text{[illegible]}-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{\text{[illegible]}}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$\text{[illegible]} \geq \boldsymbol{n} \text{[illegible]} \wedge \boldsymbol{l_s}=1 \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq j_i+j_{sa}-s \wedge j^{sa}+s-j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n}<\boldsymbol{l_{ik}}\leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}=j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\mathbb{k}_3,j_{sa}^{i}\right\}\wedge$

$s\geq 6\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}-\mathbb{k}_1-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}^{(\boldsymbol{n}+j_{sa}-s)}\sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa} - j_{sa}^{ik} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} > D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa}^{s} < j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 1 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{()} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(\boldsymbol{l_i}+j_{sa}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_i} - s + 1 > 0 \wedge$

$\boldsymbol{l_i} > D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$
{}_{fz}S_{j_s\;,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\;)}\right.
$$

$$
\sum_{j_{ik}=\mathbf{l_{ik}}+\mathbf{n}-D}^{\mathbf{l_{ik}}}\;\sum_{(j^{sa}=\mathbf{l_{sa}}+\mathbf{n}-D)}^{(\mathbf{l_{sa}})}\;\sum_{j_i=\mathbf{l_i}+\mathbf{n}-D}^{\mathbf{n}}
$$

$$
\sum_{n_i=\mathbf{n}+\mathbb{k}}^{n}\;\sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+[illegible]-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$
\sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-[illegible]+1}^{n_{ik}+j_{ik}-j^{sa}-[illegible]}\;\sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot
$$

$$
\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot
$$

$$
\frac{(n_{sa}-n_s-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i)!}\cdot
$$

$$
\frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)!\cdot(\mathbf{n}-j_i)!}\cdot
$$

$$
\frac{\left(\mathbf{l_{ik}}-j_{sa}^{ik}\right)!}{(\mathbf{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot
$$

$$
\frac{\left(\mathbf{l_{sa}}+j_{sa}^{ik}-\mathbf{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\mathbf{l_{sa}}-j^{sa}-\mathbf{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot
$$

$$
\frac{(\mathbf{l_i}+j_{sa}-\mathbf{l_{sa}}-s)!}{(j^{sa}+\mathbf{l_i}-j_i-\mathbf{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot
$$

$$
\left.\frac{(D-\mathbf{l_i})!}{(D+j_i-\mathbf{n}-\mathbf{l_i})!\cdot(\mathbf{n}-j_i)!}\right)
$$

$D \geq \mathbf{n} < n \wedge \mathbf{l_s}=1 \wedge \mathbf{l_s} \leq D-\mathbf{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq j_i+j_{sa}-s \wedge j^{sa}+s-j_{sa} \leq j_i \leq \mathbf{n} \wedge$

$\mathbf{l_{ik}}-j_{sa}^{ik}+1 > \mathbf{l_s} \wedge \mathbf{l_{sa}}+j_{sa}^{ik}-j_{sa}=\mathbf{l_{ik}} \wedge \mathbf{l_i}+j_{sa}-s=\mathbf{l_{sa}} \wedge$

$\boldsymbol{l_{ik}} > D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}^{()} \sum_{(j_s=1)}^{()} \sum_{j_{ik}=j_s+\boldsymbol{n}-D}^{\boldsymbol{n}+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()} \sum_{j_i=j^{sa}+s-j_{sa}}^{n} \sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)} \right.$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} \right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} > D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\colon \left\{ j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z\colon z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

[illegible] j^{sa}, j_i $\Bigg(\sum_{[illegible]=1} \sum_{(j_s=1)}^{(\ldots)}$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \;\; \sum_{j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\ldots j_{sa}-s)} \;\; \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}} \;\; \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \;\; \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} \right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1}^{[illegible]} \sum_{(j_s=[illegible])}^{[illegible]} \sum_{j_{ik}=j_{sa}^{ik}}^{[illegible]} \sum_{(j^{sa}=j_{sa})}^{[illegible]} \sum_{j_i=s}^{[illegible]}$$

$$\sum_{n_i=[illegible]+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{([illegible]-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{[illegible]_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=[illegible])}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{[illegible]} \sum_{(j^{sa}=[illegible])}^{([illegible]} \sum_{[illegible]=s}^{\boldsymbol{l_i}}$$

$$\sum_{[illegible]\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}[illegible]-j_{ik}+1)}^{[illegible]-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}[illegible]_3-j^{sa}+1}^{n_{ik}+j_{ik}-[illegible]-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - [illegible]_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik}[illegible])! \cdot [illegible]_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{s[illegible]} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(\boldsymbol{l_i} + j_{sa} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D [illegible] n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1}^{(\ )} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}(j_s)}^{(\ )} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(j_i+j_{sa}-s)} \sum_{j_i=s}^{\boldsymbol{l_i}} \sum_{n_i=\boldsymbol{n}+\Bbbk-j_i+1}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)} $$

$$ \frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot $$

$$ \frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot $$

$$ \frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot $$

$$ \frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot (j^{sa} - j_{sa})!} \cdot $$

$$ \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} $$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$_{fz}S_{j_s, j_{ik}, j^{s\ldots}}$ [illegible] $\sum_{k \ldots} \sum_{(\ldots=1)}^{(\;)}$

[illegible] $\sum_{j_{ik} \ldots}$ [illegible] $\sum_{(j^{sa} - \ldots)}$ [illegible] $\sum_{j_i = s}^{\boldsymbol{l_{sa}} + s - j_{s\ldots}}$

$\sum_{n_{\ldots} + \Bbbk}^{n} \sum_{(n_{ik} = \boldsymbol{n} + \Bbbk_2 + \Bbbk_3 - j_{ik} + 1)}^{(n_i - j_{ik} - \Bbbk_1 + 1)}$

$\sum_{n_{sa} = \boldsymbol{n} + \Bbbk_3 - j^{sa} + 1}^{n_{ik} + j_{i\ldots} - j^{sa} - \Bbbk_2} \sum_{(n_s = \boldsymbol{n} - j_i + 1)}^{(n_{sa} + j^{sa} - j_i - \Bbbk_3)}$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}[illegible]^{sa}, j_i} = \sum_{k=1}^{[illegible]} \sum_{(j_s=1)}^{([illegible])}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{[illegible]} \sum_{([illegible]=j_{sa})}^{([illegible]-s)} \sum_{j_i=j^{sa}+s-j_{sa}}^{[illegible]}$$

$$\sum_{n_i=[illegible]+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{([illegible]-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{[illegible]_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$$

$$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \le j_i \le \boldsymbol{n} \wedge$$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$$

$$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$$

$$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$$

$$s \ge 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$[illegible]_{j_{ik}, j^{sa}, j_i} = \sum_{[illegible]=1} \sum_{(j_s=1)}^{([illegible])} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=j^{sa}+s-j_{sa}} \sum_{n_i=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$ {}^{fz}S_{j_s,j_{ik},j^{\text{[illegible]}}} = \sum_{k=1}^{\text{[illegible]}} \sum_{(j_s=\text{[illegible]})}^{\text{[illegible]}} \sum_{j_{ik}=j_{sa}^{ik}}^{\text{[illegible]}} \sum_{(j^{sa}=j_{sa})}^{(\text{[illegible]}\boldsymbol{l_{sa}})} \sum_{j_i=s}^{\boldsymbol{l_i}} $$

$$ \sum_{n_i=\text{[illegible]}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(\text{[illegible]}-j_{ik}-\mathbb{k}_1+1)} $$

$$ \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{\text{[illegible]}_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} $$

$$ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot $$

$$ \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot $$

$$ \frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot $$

$$ \frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot (j^{sa} - j_{sa})!} \cdot $$

$$ \frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot $$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \land$

$D \geq \boldsymbol{n} < n \land I = \mathbb{k} > 0 \land$

$j_{sa} < j_{sa}^{i} - 1 \land j_{sa}^{ik} = j_{sa} - 1 \land j_{sa}^{s} < j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \land$

$s \geq 6 \land \boldsymbol{s} = s + \mathbb{k} \land$

$\mathbb{k}_z: z = 3 \land \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=j^{sa}+s-j_{sa}}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \land$

$D \geq \boldsymbol{n} < n \land I = \Bbbk > 0 \land$

$j_{sa} < j_{sa}^{i} - 1 \land j_{sa}^{ik} = j_{sa} - 1 \land j_{sa}^{s} < j_{sa}^{ik} + 1 \land$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\right\}$

$s \geq 6 \land \boldsymbol{s} = s + \Bbbk \land$

$\Bbbk_z: z = 3 \land \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=s}^{\boldsymbol{l_{sa}}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-\text{[illegible]})!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(\text{[illegible]}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{(\text{[illegible]}-\boldsymbol{l_i})!}{(D+\text{[illegible]}-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\text{[illegible]}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq$ [illegible] $\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge$ [illegible] $+s-j_{sa}$ [illegible] $j_i\leq$ [illegible]

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=$ [illegible] $\wedge\boldsymbol{l_i}+j_{sa}-s$ [illegible] $\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-$ [illegible] $\wedge j_{sa}^{s}<j_{sa}^{ik}$ [illegible] $1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,\text{[illegible]},j_{sa}^{i}\right\}\wedge$

$s\geq 6\wedge\boldsymbol{s}=s+$ [illegible]

$\mathbb{k}$ [illegible] $z=3\wedge$ [illegible] $=\mathbb{k}_1+$ [illegible] $+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s\;,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\;)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\;\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\;)}\;\sum_{j_i=s}^{\boldsymbol{l_{ik}}+s-j_{sa}^{ik}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\;\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\;\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \text{[illegible]})!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\text{[illegible]} - j_{sa}^{ik})!}{(\text{[illegible]} - j_{ik})! \cdot (\text{[illegible]} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\text{[illegible]} - \boldsymbol{l_i})!}{(\text{[illegible]} j_i - \boldsymbol{n} - \text{[illegible]})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_s \text{[illegible]} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} \text{[illegible]} - j_{sa} \leq j_i \leq \text{[illegible]} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{s}^{ik} \text{[illegible]} j_{sa} - \text{[illegible]} \wedge \boldsymbol{l_i} + \text{[illegible]} - s = \text{[illegible]}\boldsymbol{a} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{s}^{ik} = j_{sa} - 1 \wedge j_s \text{[illegible]} < j_{sa}^{ik} - 1 \text{[illegible]}$

$\boldsymbol{s}: \{j_{sa}^{s}, \text{[illegible]}, \cdots, \mathbb{k}, j_{sa}^{ik}, \mathbb{k}_2, \text{[illegible]}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \text{[illegible]} \wedge$

$\mathbb{k}_z: z \text{[illegible]} 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \text{[illegible]}$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_i}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{\text{[illegible]}})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-\text{[illegible]}-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-\text{[illegible]})!}{(n_s+j_i\text{[illegible]}\boldsymbol{n}-1)!\cdot(\boldsymbol{n}\text{[illegible]}j_i)!}\cdot$$

$$\frac{(\boldsymbol{l}\text{[illegible]}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}\text{[illegible]})!\cdot(\text{[illegible]}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i\text{[illegible]}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + \text{[illegible]}_{sa} - 1 \leq \text{[illegible]} \leq j^{\text{[illegible]}} - j_{sa}^{ik} - \text{[illegible]}_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + \text{[illegible]} - s \wedge j^{sa} + \text{[illegible]} - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \text{[illegible]} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{s\text{[illegible]}} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l}\text{[illegible]} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \text{[illegible]} I = \mathbb{k} > \text{[illegible]} \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j\text{[illegible]} = j_{sa} - \text{[illegible]} \wedge j_{sa}^{s} \text{[illegible]} j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{\text{[illegible]}}, \text{[illegible]}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j\text{[illegible]}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} \text{[illegible]} + \mathbb{k} \wedge$

$\mathbb{k}_z; \text{[illegible]}3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa}^{i} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_2 = 0 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ \ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{ik}}+j_{sa}-j_{sa}^{ik})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}-\Bbbk_2+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge I = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} - 1 \wedge j_s + j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{l_i} + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 \leq \boldsymbol{l_i} \wedge \boldsymbol{l_i} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}
$$

$$
\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_i}+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+j^{sa}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot
$$

$$
\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1}^{(\ )} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \ge \boldsymbol{n} < n \wedge \boldsymbol{s} = 1 \le \boldsymbol{l_i} \le D + s - \boldsymbol{n} \wedge$

$1 \le j_s \le \boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \le j_i \le \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z : z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\Bbbk_2)} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(\ )} \sum_{(j_s=\mathbb{k}_1+1)}^{(\ )} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\ )} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(j_{sa})} \sum_{j_i=s}^{\boldsymbol{l_i}} \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=n_{sa}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$$

$$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$$

$$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$$

$$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z : z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} \text{[illegible]} \sum_{k\text{[illegible]}} \sum_{(\text{[illegible]}=1)}^{(\ )}$$

$$\sum_{j_{ik}=j\text{[illegible]}j_{sa}^{ik}-j_{sa}} \sum_{\text{[illegible]}}^{(\text{[illegible]}+j_{sa}-j_{sa}^{ik})} \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i\text{[illegible]}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_i\text{[illegible]}j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$f\,\text{[illegible]}\,, j_{ik}, j^{sa}, j_i \text{[illegible]} \sum_{k=1}^{\text{[illegible]}} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{\text{[illegible]}=j_{sa}^{ik}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\text{[illegible]}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$j_s \;, j_{ik}, j^{sa}, j_i = \sum_{k=1} \sum_{(j_s=1)}^{(\;)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\;)} \sum_{j_i=j^{sa}+s-j_{sa}}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j_{sa}^{i}\right\}$

$s\geq 6\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i}=\sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_i}+j_{sa}-s)}\ \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j^{ik}_{sa})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j^{ik}_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j^{ik}_{sa}-j_{ik}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-j_{sa})!\cdot(j^{sa}+j^{ik}_{sa}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j^{ik}_{sa}+1\wedge j_s+j^{ik}_{sa}-1\leq j_{ik}\leq j^{sa}+j^{ik}_{sa}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j^{ik}_{sa}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j^{ik}_{sa}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j^{ik}_{sa}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}<j^{i}_{sa}-1\wedge j^{ik}_{sa}=j_{s}-1\wedge j^{s}_{sa}<j^{ik}_{sa}-1\wedge$

$\boldsymbol{s}:\{j^s_{sa},\cdots,\mathbb{k}_1,j_{sa},\cdots,j_{sa},\cdots,\mathbb{k}_3,j^{i}_{sa}\}\wedge$

$s\geq 6\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$f_z:z=2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-\Bbbk_2-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(\boldsymbol{l_{sa}}+j_{ik}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1}^{(\ )} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=s}^{\boldsymbol{l_{sa}}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_i} - s + 1 > \boldsymbol{l_s} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n})\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\colon \left\{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z\colon z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$[\text{illegible}]S_{j_s,j_{ik},j^{[\text{illegible}]}} = \sum_{k=1}^{[\text{illegible}]} \sum_{(j_s=[\text{illegible}])}^{([\text{illegible}])} \sum_{[\text{illegible}]=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}[\text{illegible}]} \sum_{(j^{sa}=j_{sa})}^{([\text{illegible}]a)} \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=[\text{illegible}]+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{([\text{illegible}]-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{[\text{illegible}]j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{()} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{()} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(\boldsymbol{l_i} + j_{sa} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \ge \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \le D - \boldsymbol{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \le j_i \le \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \le D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \ge 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} >$ [illegible] $\wedge \boldsymbol{l_i} + j_{sa} - s$ [illegible] $\boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1$ [illegible]

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} =$ [illegible] $+ \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1}\sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}\ \sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)}\ \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq j_i+j_{sa}-s \wedge j^{sa}+s-j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s = \boldsymbol{l_{sa}} \wedge$

$D+s-\boldsymbol{n} \leq \boldsymbol{l_i} \leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{ik}-1 \wedge j_{sa}^{ik} = j_{ik}-1 \wedge j_{sa} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa}^{sa},\cdots,\mathbb{k}_3,j_{sa}^{i}\} \wedge$

$s \geq 5 \wedge S = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{n}+j_{sa}-s)}\ \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\Bbbk}^{n}\;\sum_{(n_{ik}=\mathbf{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\mathbf{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\;\sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)!\cdot(\mathbf{n}-j_i)!}\cdot$$

$$\frac{(\mathbf{l_{sa}}+j_{sa}^{ik}-\mathbf{l_{ik}}-j_{sa})!}{(\mathbf{l_{sa}}+j_{sa}^{ik}-j^{sa}-\mathbf{l_{ik}})!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(D-\mathbf{l_i})!}{(D+j_i-\mathbf{n}-\mathbf{l_i})!\cdot(\mathbf{n}-j_i)!}$$

$D \geq \mathbf{n} < n \wedge \mathbf{l_s} = 1 \wedge \mathbf{l_s} \leq D - \mathbf{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$

$\mathbf{l_{ik}} - j_{sa}^{ik} + 1 = \mathbf{l_s} \wedge \mathbf{l_{sa}} + j_{sa}^{ik} - j_{sa} > \mathbf{l_{ik}} \wedge \mathbf{l_i} + j_{sa} - s > \mathbf{l_{sa}} \wedge$

$D + s - \mathbf{n} < \mathbf{l_i} \leq D + j_{sa} + s - \mathbf{n} - 1 \wedge$

$D \geq \mathbf{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} > j_{sa}^{s} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\mathbf{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s > 3 \wedge \mathbf{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1}\sum_{(j_s=1)}^{(\;)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})}\ \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_s} + s - 1 < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\colon \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \land \boldsymbol{s} = s + \mathbb{k} \land$

$\mathbb{k}_z: z = 3 \land \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ \ )} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ \ )} \sum_{n_s=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_i+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \land$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \land$

$D \geq \boldsymbol{n} < n \land I = \mathbb{k} > 0 \land$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i} \right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{\cdots=1}^{(\cdots)} \sum_{(j_s=1)}^{(\cdots)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{\cdots} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s\cdots j_{sa}}^{\boldsymbol{n}}$$

$$\sum_{n_i=\cdots+\Bbbk}^{n} \sum_{(n_{ik}=\cdots j_{ik}+1)}^{(\cdots-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}\cdots-j^{sa}+1}^{\cdots+j_{ik}-\cdots-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - \cdots)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{s\text{[illegible]}},j_{\text{[illegible]}}} = \sum_{k\text{[illegible]}} \sum_{(\text{[illegible]}=1)}^{(\;)}$$

$$\sum_{j_{ik}\text{[illegible]}a+j\text{[illegible]}-j_{sa}} \sum_{(j^{s\text{[illegible]}}+j_{sa}-\text{[illegible]})}^{(\;)} \sum_{\text{[illegible]}-D-j_{sa}^{ik}}^{\boldsymbol{n}}$$

$$\sum_{n_{\text{[illegible]}}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{\text{[illegible]}}{}^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{\text{[illegible]}j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq \boldsymbol{n}\wedge$$

$$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$$

$$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1\wedge$$

$$D\geq \boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$$

$$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$$

$$\boldsymbol{s}:\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j_{sa}^{i}\}\wedge$$

$$s\geq 6\wedge \boldsymbol{s}=s+\mathbb{k}\wedge$$

$$\mathbb{k}_z: z=3\wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$$

$$f_{[illegible]}{}_{j_{ik},j^{sa},j_{[illegible]}}[illegible]=\sum_{[illegible]=1}^{[illegible]}\sum_{(j_s=1)}^{([illegible]}$$

$$\sum_{j_{ik}[illegible]^{sa}+j_{sa}^{ik}-j_{sa}}^{[illegible]}\sum_{(j^{sa}[illegible]\boldsymbol{n}+j_{sa}-D[illegible]s)}^{(\boldsymbol{n}+[illegible]-s)}\sum_{j_i=j^{sa}+s-j_{sa}}^{[illegible]}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{[illegible]}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\quad)}$$

$$\sum_{[illegible]=j^{sa}+j_{sa}-j_{sa}}^{[illegible]} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{([illegible]+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} \; 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$

$${}_{fz}S_{j_s\;,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\;)}$$

$$\sum_{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{\left(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik}\right)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\colon \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z\colon z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}^{ik}-D-s}^{\boldsymbol{n}+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\Bbbk>0\wedge$

$j_{sa}<j^{sa}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\cdots,\Bbbk_1,j_{sa}^{ik},\Bbbk_2,j_{sa},\cdots,\Bbbk_3,j_{sa}^{i}\}$

$s\geq 3\wedge\boldsymbol{s}=s+\Bbbk\wedge$

$\Bbbk_z:z=3\wedge\Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{n}+j_{sa}^{ik}-s}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}\ \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{l_{sa}}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_i} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} \geq \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{ik} - 1 \wedge j_{sa}^{ik} = j_{ik} - 1 \wedge j_{sa} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 1 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{n}+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - [illegible] \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa} - j_{sa}^{ik} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + j_{sa} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > [illegible] \wedge$

j_{sa} [illegible] $j_s - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

s [illegible] $= s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=n-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-\mathbb{k}_2-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_{sa}} + s - j_{sa} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}^{(\boldsymbol{l_{ik}}+j_{sa}-j_{sa}^{ik})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1}^{n_i-j_{ik}-\Bbbk_1+1} \sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \land$

$D \geq \boldsymbol{n} < n \land I = \mathbb{k} > 0 \land$

$j_{sa} < j_{sa}^{i} - 1 \land j_{sa}^{ik} = j_{sa} - 1 \land j_{sa}^{s} < j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i} \right\} \land$

$s \geq 6 \land \boldsymbol{s} = s + \mathbb{k} \land$

$\mathbb{k}_z: z = 3 \land \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s[illegible], j_{ik}, j^{[illegible]}, [illegible]} = \sum_{k[illegible]} \sum_{[illegible]=1)}^{(\ )}$$

$$\sum_{j_{ik}=[illegible]+\boldsymbol{n}[illegible]-D-j_{sa}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}} \sum_{[illegible]=j_{ik}+j_{sa}[illegible]}^{(\ )} \sum_{[illegible]\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i[illegible]+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_i[illegible]j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D-\boldsymbol{l_s})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{l_i}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\right\}$

$s \geq 6 \wedge \boldsymbol{s} = 3 + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - \boldsymbol{l_{sa}})! \cdot (\boldsymbol{l_{sa}} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_s} + j_{sa}^{ik} - j^{sa} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - j_{sa})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 \geq \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} \geq \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_i - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$\boldsymbol{s} > 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-\mathbb{k}_2-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge s \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ \ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=\text{[illegible]}a+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\text{[illegible]}}^{n} \sum_{\text{[illegible]}ik=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-\text{[illegible]}1)}^{(n_i-j_{ik}-\text{[illegible]}+1)}$$

$$\sum_{n_{sa}=\text{[illegible]}-j^{sa}+1}^{\text{[illegible]}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{\text{[illegible]}+1)}^{\text{[illegible]}sa+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{i\text{[illegible]}} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)!\text{[illegible]}(n_i - n_{ik}\text{[illegible]}j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik}\text{[illegible]}n_{sa} - 1)!}{(j^{sa}\text{[illegible]} - 1)!\text{[illegible]}n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - \text{[illegible]}a - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$(($[illegible] $< n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_i} - s + 1 > \boldsymbol{l_s} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$f[illegible]_{s}, j_{ik}, j^{sa}, j_i = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s+1}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}-\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(\boldsymbol{l_i}+j_{sa}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\;)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\;)} \sum_{j_i=s} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{(\;)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\;)} \sum_{j_i=s+1}^{\boldsymbol{l_i}} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot
$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j_{sa}^{i}\right\}\wedge$

$s\geq 6\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} \text{[illegible]})!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\text{[illegible]} - s)!}\right)$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik} \text{[illegible]} ik} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\text{[illegible]}}^{\boldsymbol{l_i}} \right.$$

$$\sum_{n_i=\text{[illegible]}\mathbb{k}} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2 \text{[illegible]} j_{ik}+1)}^{(\text{[illegible]} j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\text{[illegible]}-j^{sa}+1}^{\text{[illegible]}+j_{ik}-j^{s\text{[illegible]}}} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n\text{[illegible]} n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j\text{[illegible]} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \le j_i \le \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \ge 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right. $$

$$ \sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} $$

$$ \sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)} $$

$$ \frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot $$

$$ \frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot $$

$$ \frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot $$

$$ \left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) + $$

$$ \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=s+1}^{\boldsymbol{l_i}} \right. $$

$$ \sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} $$

$$\sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\frac{(\mathbf{l_{ik}} - j_{sa}^{ik})!}{(\mathbf{l_{ik}} - \mathbf{l_i})! \cdot (\mathbf{l_i} - j_{sa}^{ik})!} \cdot$$

$$\left.\frac{(D - \mathbf{l_i})!}{(D + j_i - \mathbf{n} - \mathbf{l_i})! \cdot (\mathbf{n} - j_i)!}\right)$$

$D \geq \mathbf{n} < n \wedge \mathbf{l_s} = 1 \wedge \mathbf{l_i} \leq D + s - \mathbf{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$

$\mathbf{l_{ik}} - j_{sa}^{ik} + 1 > \mathbf{l_s} \wedge \mathbf{l_{sa}} + j_{sa}^{ik} - j_{sa} = \mathbf{l_{ik}} \wedge \mathbf{l_i} + j_{sa} - s > \mathbf{l_{sa}} \wedge$

$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\mathbf{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z\colon z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-\text{[illegible]})!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\text{[illegible]})!}{(D\text{[illegible]}s-\text{[illegible]}\boldsymbol{l}\text{[illegible]})!\cdot\text{[illegible]}(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}^{\text{[illegible]}} \sum_{(j_s=1)}^{(\text{[illegible]})} \sum_{j_{ik}=\text{[illegible]}+j_{sa}^{ik}-j_{sa}}^{\text{[illegible]}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=s+1}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}\text{[illegible]}}^{\text{[illegible]}} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,\text{[illegible]},j^{sa},j_i} = \left(\sum_{k=1}^{\text{[illegible]}} \sum_{(j_{\text{[illegible]}}=1)}^{(\;)} \sum_{j_{ik}=j_{sa}^{ik}}^{\text{[illegible]}} \sum_{(j^{sa}=j_{sa})}^{(\;)} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\sum_{j_i=s+1}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(\boldsymbol{l_{sa}}+j_{ik}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_i} - s + 1 > \boldsymbol{l_s} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n})\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=s}^{\boldsymbol{l_i}}\right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\left.\frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!}\right) +
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=s+1}^{\boldsymbol{l_i}}\right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$\sum_{n_{sa}=\mathbf{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\ \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)!\cdot(\mathbf{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j^{ik}_{sa})!}{(\boldsymbol{l_{ik}}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_s}-j^{ik}_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_s}+j^{ik}_{sa}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j^{ik}_{sa}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_{sa}}-j_i-\boldsymbol{l_i})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\mathbf{n}-\boldsymbol{l_i})!\cdot(\mathbf{n}-j_i)!}\right)$$

$D \geq \mathbf{n} < n \wedge \boldsymbol{l_s} = s \wedge \boldsymbol{l_i} \leq D + s - \mathbf{n} \wedge$

$1 \leq j_s \leq j_{ik} - j^{ik}_{sa} + 1 \wedge j_s + j^{ik}_{sa} - 1 \leq j_{ik} \leq j^{sa} + j^{ik}_{sa} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j^{ik}_{sa} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$

$\boldsymbol{l_{ik}} - j^{ik}_{sa} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j^{ik}_{sa} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \mathbf{n} < n \wedge \mathbb{I} = \Bbbk > 0 \wedge$

$j_{sa} < j^{i}_{sa} - 1 \wedge j^{ik}_{sa} = j_{sa} - 1 \wedge j^{s}_{sa} < j^{ik}_{sa} - 1 \wedge$

$\mathbf{s}: \{j^{s}_{sa}, \cdots, \Bbbk_1, j^{ik}_{sa}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j^{i}_{sa}\} \wedge$

$s \geq 6 \wedge \mathbf{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}\ \sum_{j_{ik}=j^{ik}_{sa}}\ \sum_{(j^{sa}=j_{sa})}^{(\ )}\ \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(\text{[illegible]}-\boldsymbol{l_i})!}{(D\,\text{[illegible]}\,s-\boldsymbol{n}-\text{[illegible]}_i)!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{\text{[illegible]}=1}^{\text{[illegible]}} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{\text{[illegible]}} \sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=j^{sa}+s-j_{sa}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j_{sa}^{i}\right\}\wedge$

$s\geq 6\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s,\ldots,j^{sa},j_i}\left(\sum_{k=1}\sum_{(j_s=1)}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\;)}\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_{sa}})}\sum_{j_i=j^{sa}+s-j_{sa}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \land$

$D \geq n \land I = \mathbb{k} > 0 \land$

$j_{sa} < j_{sa}^{i} - 1 \land j_{sa}^{ik} = j_{sa} - 1 \land j_{sa}^{s} < j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \land$

$s \geq 6 \land \boldsymbol{s} = s + \mathbb{k} \land$

$\Bbbk_z: z = 3 \land \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=j^{sa}+s-j_{sa}} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} + 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}\ \sum_{j_{ik}=j_{sa}^{ik}}\ \sum_{(j^{sa}=j_{sa})}^{(\ )}\ \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_{ik}}}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}\sum_{j_i=j^{sa}+s-j_{sa}}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \land$

$D \geq \boldsymbol{n} < n \land I = \Bbbk > 0 \land$

$j_{sa} < j_{sa}^{i} - 1 \land j_{sa}^{ik} = j_{sa} - 1 \land j_{sa}^{s} < j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\right\} \land$

$s \geq 6 \land \boldsymbol{s} = s + \Bbbk \land$

$\Bbbk_z: z = 3 \land \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=s+1}^{\boldsymbol{l_i}} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-\boldsymbol{l_{sa}})!\cdot(\boldsymbol{l_{sa}}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + j_i - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}\ \sum_{j_{ik}=j_{sa}^{ik}}\ \sum_{(j^{sa}=j_{sa})}^{(\ )}\ \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(\boldsymbol{l_i}+j_{sa}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\;)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\;)} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\colon \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z : z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq j_i+j_{sa}-s \wedge j^{sa}+s-j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s = \boldsymbol{l_{sa}} \wedge$

$D+s-\boldsymbol{n} < \boldsymbol{l_i} \leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$ [illegible]

$j_{sa} < j_{sa}^{i}-1 \wedge j_{sa}^{ik} = j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\}$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3$ [illegible]

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=\ldots+j_{sa}-s)}\sum_{j_i=\boldsymbol{l_i}+\ldots}^{\ldots}\right.$$

$$\sum_{n_i=\ldots\mathbb{k}}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2\ldots j_{ik}+1)}^{(\ldots j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\ldots-j^{sa}+1}^{\ldots+j_{ik}-j^{sa}\ldots}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_{\ldots}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=\cdots} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$\sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \mathbf{n} - \boldsymbol{l_i})! \cdot (\mathbf{n} - j_i)!} \right)$$

$D \ge \mathbf{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \le D - \mathbf{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \le j_i \le \mathbf{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 \ge \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} \ge \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_i - \mathbf{n} < \boldsymbol{l_i} \le D + \boldsymbol{l_s} + s - \mathbf{n} - 1 \wedge$

$D \ge \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\mathbf{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \ge 6 \wedge \mathbf{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\;\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\;\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+\ldots-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\ldots-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{\ldots}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(\ldots)!}{(n_s+j_i-\boldsymbol{n}-\ldots)!\cdot(\ldots-j_i)!}\cdot$$

$$\left.\frac{(\ldots-\boldsymbol{l_i})!}{(D\ldots s-\boldsymbol{n}-\ldots)!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\;\sum_{\ldots=1)}\;\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}}\;\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\;)}\;\sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\;\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\;\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\Bigg)$$

$\Big((D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}}\wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1)\vee$

$(D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_i}-s+1>\boldsymbol{l_s}\wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1)\Big)\wedge$

$D\geq\boldsymbol{n}<n\wedge I=$ [illegible] $>0\wedge$

j[illegible] $<j_{sa}^{i}-1$ [illegible] $j_{sa}^{ik}=j_{s}$[illegible] $1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j^{s}$[illegible]$,\cdots,\mathbb{k}_1,j_{sa}^{ik},$[illegible]$j_{sa},\cdots,$[illegible]$\}\wedge$

$s\geq 6\wedge$ [illegible] $=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge$ [illegible] $\mathbb{k}_1+$ [illegible] $+\mathbb{k}_3\Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\ldots)!}{(D+s-\ldots-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=\ldots} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}\ldots}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{\ldots} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j_{sa}^{i}\}\wedge$

$s\geq 6\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)}\sum_{j_i=j^{sa}+s-j_{sa}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \ge \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \le D - \boldsymbol{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \le j_i \le \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + \boldsymbol{l_s} - \boldsymbol{n} < \boldsymbol{l_i} \le D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}^{()} \sum_{(j_s=1)}^{()} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{()} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{()} \right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \text{[illegible]})!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\text{[illegible]} - j_{sa}^{ik} \text{[illegible]})!}{(\text{[illegible]} - j_{ik})! \cdot (\text{[illegible]} - j_{sa}^{ik})!} \cdot$$

$$\left. \frac{(\text{[illegible]} - \boldsymbol{l_i})!}{(\text{[illegible]} - \boldsymbol{n} - \text{[illegible]})! \cdot (\boldsymbol{n} - j_i)!} \right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa}$ [illegible] $- j_{sa} \leq j_i \leq$ [illegible] $\wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik}$ [illegible] $j_{sa} =$ [illegible] $\wedge \boldsymbol{l_i} +$ [illegible] $- s =$ [illegible] $\boldsymbol{_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} +$ [illegible] $- \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} <$ [illegible] $- 1 \wedge j_{sa}^{ik} =$ [illegible] $- 1 \wedge j_{sa}^{s} <$ [illegible] $1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}$ [illegible] $\mathbb{k}_2, j_{sa}, \cdots$ [illegible] $\mathbb{k}_3, j_{sa}^{i}$ [illegible]

$s \geq$ [illegible] $\boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3$ [illegible] $= \mathbb{k}_1 +$ [illegible] $+ \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{([illegible])!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot ([illegible] s)!}\Bigg) +$$

$$\Bigg(\sum_{[illegible]=1}^{[illegible]} \sum_{(j_s=1)}^{([illegible])}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{n}+j_{sa}^{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{[illegible]} \sum_{j_i=j^{sa}+s-j_{sa}}^{[illegible]}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{[illegible]} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\Bigg)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=[illegible]}^{[illegible]} \sum_{(j_s=1)}^{[illegible]} \sum_{j_{ik}=[illegible]}^{[illegible]} \sum_{(j^{sa}=j_{sa})}^{[illegible]} \sum_{j_i=s}^{[illegible]} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{[illegible]} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}\sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge$ [illegible] $\leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

[illegible] $< \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\!: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!}\right) +$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}}\sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)}\sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(j_{sa} - j_{sa}^{ik})!}{(j_{sa} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - 1)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} \right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - j_s \wedge$

$D \geq \boldsymbol{n} < n \wedge \mathbb{I} = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa} < j_{sa}^{ik} - 1 \wedge$

$\mathbb{k} \in \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left.\frac{(D - s)!}{(D - s - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!}\right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l_i}\,[illegible]+j_{sa}^{ik}-D-s}^{\boldsymbol{n}+j\,[illegible]\,-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{([illegible])} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(D-\mathbf{l_i})!}{(D+s-\mathbf{n}-\mathbf{l_i})!\cdot(\mathbf{n}-s)!}\Bigg)+$$

$$\Bigg(\sum_{k=1}\sum_{(j_s=1)}^{(\;)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\;)}\sum_{j_i=\mathbf{l_{sa}}+\mathbf{n}+s-D-j_{sa}}^{\mathbf{n}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j^{sa}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)!\cdot(\mathbf{n}-j_i)!}\cdot$$

$$\frac{\left(\mathbf{l_{sa}}+j_{sa}^{ik}-\mathbf{l_{ik}}-j_{sa}\right)!}{\left(\mathbf{l_{sa}}+j_{sa}^{ik}-j^{sa}-\mathbf{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(D-\mathbf{l_i})!}{(D+j_i-\mathbf{n}-\mathbf{l_i})!\cdot(\mathbf{n}-j_i)!}\Bigg)$$

$D\geq\mathbf{n}<n\wedge\mathbf{l_s}=1\wedge\mathbf{l_s}\leq D-\mathbf{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\mathbf{n}\wedge$

$\mathbf{l_{ik}}-j_{sa}^{ik}+1>\mathbf{l_s}\wedge\mathbf{l_{sa}}+j_{sa}^{ik}-j_{sa}=\mathbf{l_{ik}}\wedge\mathbf{l_i}+j_{sa}-s=\mathbf{l_{sa}}\wedge$

$D+j_{sa}-\mathbf{n}<\mathbf{l_{sa}}\leq D+\mathbf{l_s}+j_{sa}-\mathbf{n}-1\wedge$

$D\geq\mathbf{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}^{()} \sum_{(j_s=1)}^{()} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{()} \sum_{j_i=s} \right. $$

$$ \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} $$

$$ \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} $$

$$ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot $$

$$ \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot $$

$$ \frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot $$

$$ \left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) + $$

$$ \left(\sum_{k=1} \sum_{(j_s=1)}^{()} \right. $$

$$ \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{()} \sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}} $$

$$ \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} $$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-j_s)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_s}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} \geq \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{ik} - 1 \wedge j_{sa}^{ik} = j_{ik} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}^{()} \sum_{(j_s=1)}^{()} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{()} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{\text{[illegible]}})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-\text{[illegible]}-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-\text{[illegible]}}{(n_s+j_i\text{[illegible]}\boldsymbol{n}-1)!\cdot(\boldsymbol{n}\text{[illegible]}_i)!}\cdot$$

$$\left.\frac{(D-\text{[illegible]})!}{(\text{[illegible]}s-\text{[illegible]}\boldsymbol{L})!\text{[illegible]}\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )}\right.$$

$$\sum_{j_{i\text{[illegible]}k}+\boldsymbol{n}-D} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\text{[illegible]}} \sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_s - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$fz^{S}_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}^{(\;)}\sum_{(j_s=\ldots)}\ldots\right.$$

$$\sum_{j_{ik}=j^{sa}+j^{ik}_{sa}-j_{sa}}\;\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}\ldots)}^{(\boldsymbol{n}+j_{sa}-s)}\;\sum_{\ldots j^{sa}\ldots-j_{sa}}$$

$$\sum_{n_i\ldots}^{n}\;\sum_{(n_{ik}=\boldsymbol{n}+\ldots+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}\ldots+\mathbb{k}_3-j^{s\ldots}}^{n_{ik}+\ldots j^{sa}-\mathbb{k}_2}\;\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}\ldots j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-\ldots n_{ik}-\mathbb{k}_1-1)!}{(\ldots-2)!\cdot(\ldots-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{\ldots}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(\ldots j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j^{ik}_{sa})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j^{ik}_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$\ldots > \boldsymbol{n} \ldots \land \boldsymbol{l_s}=1\land \boldsymbol{l_s}\le D-\boldsymbol{n}+1\land$

$1\le j_s\le j_{ik}-j^{ik}_{sa}+1\land j_s+j^{ik}_{sa}-1\le j_{ik}\le j^{sa}+j^{ik}_{sa}-j_{sa}\land$

$j_{ik}+j_{sa}-j^{ik}_{sa}\le j^{sa}\le j_i+j_{sa}-s\land j^{sa}+s-j_{sa}\le j_i\le \boldsymbol{n}\land$

$\boldsymbol{l_{ik}}-j^{ik}_{sa}+1>\boldsymbol{l_s}\land \boldsymbol{l_{sa}}+j^{ik}_{sa}-j_{sa}>\boldsymbol{l_{ik}}\land \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\land$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{()} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{()} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{()} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - \boldsymbol{l_s})! \cdot (\boldsymbol{l_s} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} > j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$\boldsymbol{s} \geq 6 \wedge \boldsymbol{S} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!}\right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\;)}\right.$$

$$\sum_{j_{ik}=\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{n}+j_s^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\;)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+j_{sa}^{ik}-\boldsymbol{n}<\boldsymbol{l_{ik}}\leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\Bbbk>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}=j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\Bbbk_1,j_{sa}^{ik},\Bbbk_2,j_{sa},\cdots,\Bbbk_3,j_{sa}^{i}\right\}\wedge$

$s\geq 6\wedge\boldsymbol{s}=s+\Bbbk\wedge$

$\Bbbk_z: z=3\wedge\Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{()}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{()}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=[illegible])}^{(\ )}[illegible]\right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\sum_{j_i=[illegible]+s-[illegible]-j_{sa}^{ik}}$$

$$\sum_{n_i=[illegible]}^{n}\sum_{(n_{ik}=\boldsymbol{n}+[illegible]+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=[illegible]+\mathbb{k}_3-j^{sa}[illegible]}^{n_{ik}+[illegible]-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}[illegible]-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{([illegible]-2)!\cdot([illegible]-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j[illegible]-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{([illegible]-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$[illegible] > \boldsymbol{n} [illegible] \wedge \boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=n_s+j_i-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=n_s+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!}\right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}\ \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa} - j_{sa}^{ik} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} > D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa}^{i} = j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 1 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-\mathbb{k}_2-n_{sa}-j^{sa})!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(\boldsymbol{l_i}+j_{sa}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge$ [illegible] $= 1 \wedge$ [illegible] $\leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} - 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_i} - s + 1 > 0 \wedge$

$\boldsymbol{l_i} > D - \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

j_{sa} [illegible] $j_{sa} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\,)}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})}\sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot
$$

$$
\frac{(n_{ik}-n_{sa}-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa})!}\cdot
$$

$$
\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot
$$

$$
\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot
$$

$$
\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot
$$

$$
\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)
$$

$D>\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$\boldsymbol{l_{ik}} > D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k [illegible]}^{[illegible]} \sum_{[illegible]=1)}^{(\;)} \right.$$

$$\sum_{j_{ik} = [illegible] + \boldsymbol{n} - D}^{\boldsymbol{n} + j_{sa}^{ik} - s} \sum_{(j^{[illegible]} [illegible]_{ik} + j_{sa} - j_{sa} [illegible]}^{(\;)} \sum_{[illegible] + s - j_{sa}}$$

$$\sum_{n_i [illegible] + \mathbb{k}}^{n} \sum_{(n_{ik} = \boldsymbol{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)}$$

$$\sum_{n_{sa} = \boldsymbol{n} + \mathbb{k}_3 - j^{sa} + 1}^{n_{ik} + j_{[illegible]} - j^{sa} - \mathbb{k}_2} \sum_{(n_s = \boldsymbol{n} - j_i + 1)}^{(n_{sa} + j^{sa} - j_i - \mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} \right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} > D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} = j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i} \right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z : z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$\sum_{k=j_{ik},j^{sa},j_i} \left(\sum_{(j_{ik}=1)} \sum_{(j_s=1)} \right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(j_i+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa})!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} \right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j\text{[illegible]}} = \sum_{k=1}^{\text{[illegible]}} \sum_{(j_s=\text{[illegible]})}^{(\text{[illegible]})} \sum_{j_{ik}=j_{sa}^{ik}}^{\text{[illegible]}} \sum_{(j^{sa}=j_{sa})}^{(\text{[illegible]})} \sum_{j_i=s}^{\text{[illegible]}}$$

$$\sum_{n_i=\text{[illegible]}+\mathbb{k}}^{\boldsymbol{n}} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(\text{[illegible]}-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{\text{[illegible]}_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1}^{(\;)} \sum_{(j_s=\ldots)}^{(\;)} \sum_{j_{ik}=j_{sa}^{ik}}^{\ldots} \sum_{(j^{sa}=\ldots)}^{(\ldots)} \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\ldots-j_{ik}+1)}^{(\ldots-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-\ldots-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(\ldots)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(\boldsymbol{l_i} + j_{sa} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}:j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=s+j^{sa}-j_{sa}}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk-j_i+1}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s[illegible],j_{ik},j^{s[illegible]}} [illegible] \sum_{k[illegible]} \sum_{[illegible]=1)}^{(\ )}$$

$$\sum_{j_{ik}[illegible]}^{[illegible]} \sum_{(j^{sa}[illegible])}^{[illegible]} \sum_{j_i=s}^{\boldsymbol{l_{sa}}+s-j_{s[illegible]}}$$

$$\sum_{n_i[illegible]+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_i[illegible]j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{[illegible]j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,\text{[illegible]}^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{\text{[illegible]}=j_{sa})}^{\text{[illegible]}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\text{[illegible]}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{\text{[illegible]}-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{\text{[illegible]}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$[illegible]_{j_{ik}, j^{sa}, j_i} = \sum_{[illegible]=1} \sum_{(j_s=1)}^{([illegible])}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{\mathbb{k}z}S_{j_s,j_{ik},j^{[illegible]}} = \sum_{k=1}^{[illegible]} \sum_{(j_s=[illegible])}^{[illegible]} \sum_{j_{ik}=j_{sa}^{ik}}^{[illegible]} \sum_{(j^{sa}=j_{sa})}^{([illegible]\boldsymbol{l_{sa}})} \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=[illegible]+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{([illegible]-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{[illegible]_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=j^{sa}+s-j_{sa}}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\}$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1}\sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\ \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\ \sum_{j_i=s}^{\boldsymbol{l_{sa}}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\Bbbk>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\Bbbk_1,j_{sa}^{ik},\cdots,\Bbbk_2,j_{sa},\cdots,\Bbbk_3,j_{sa}^{i}\}\wedge$

$s\geq 6\wedge\boldsymbol{s}=s+\Bbbk\wedge$

$\Bbbk\wedge z=3\wedge\Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\ \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\ \sum_{j_i=s}^{\boldsymbol{l_{ik}}+s-j_{sa}^{ik}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{([illegible] - j_{sa}^{ik})!}{([illegible] - j_{ik})! \cdot ([illegible] - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_s - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_i}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}\ [illegible])!\cdot([illegible]_{k}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\Bbbk>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\Bbbk_1,j_{sa}^{ik},\cdots,\Bbbk_2,j_{sa},\cdots,\Bbbk_3,j_{sa}^{i}\}\wedge$

$s\geq6\wedge\boldsymbol{s}=s+\Bbbk\wedge$

$\Bbbk_z:z=3\wedge\Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\ \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})}\ \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa} - j_{sa}^{ik} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}:\{j_s, j_{sa}^{s}, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_2 > 0 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{(\boldsymbol{l_{ik}}+j_{sa}-j_{sa}^{ik})} \sum_{(j^{sa}=j_{sa})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge I = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} - 1 \wedge j_s + j_{sa}^{ik} + 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s\;,j_{ik},j^{sa},j_i}=\sum_{k=1}\;\sum_{(j_s=1)}^{(\;\;)}
$$

$$
\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_i}+j_{sa}^{ik}-s}\;\sum_{\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)}^{(\;\;)}\;\sum_{j_i=j^{sa}+s-j_{sa}}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\;\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\;\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot
$$

$$
\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot
$$

$$
\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot
$$

$$
\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot
$$

$$
\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}^{\cdots}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\cdots+\mathbb{k}_3\cdots j_{ik}+1)}^{(n_i-j_{ik}\cdots\mathbb{k}_1+1)}$$

$$\sum_{\cdots j^{sa}+1}^{n_{ik}+j_{ik}-\cdots\mathbb{k}_2} \sum_{\cdots=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-\cdots)}$$

$$\frac{(n_i - n_{ik} \cdots)!}{(\cdots - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - \cdots - \mathbb{k}_2 - 1)!}{(j^{sa} - \cdots - 1)! \cdot (n_{ik} \cdots j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - \cdots - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \cdots 1 \cdots_{\boldsymbol{i}} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq \cdots - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}-j_i+1}^{n} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j_{sa}^{i}\right\}\wedge$

$s\geq 6\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i}=\sum_{k=1}\ \sum_{(j_s=\text{[illegible]})}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}\text{[illegible]}}\ \sum_{(j^{sa}=\text{[illegible]})}^{(\text{[illegible]}a)}\ \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{\text{[illegible]}\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\text{[illegible]}+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1\text{[illegible]})}$$

$$\sum_{\text{[illegible]}=\boldsymbol{n}+\mathbb{k}_3-\text{[illegible]}1}^{n_{ik}\text{[illegible]}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(\text{[illegible]}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2\text{[illegible]})\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(\text{[illegible]}_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-\text{[illegible]}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i\text{[illegible]}j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$$

$$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$$

$$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$$

$$\boldsymbol{s}: \left\{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\right\} \wedge$$

$$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$$

$$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$$

$$_{fz}S_{j_{s}[illegible], j_{ik}, j^{s}[illegible]} = [illegible] \sum_{k[illegible]} \sum_{[illegible]=1)}^{(\ )}$$

$$\sum_{j_{ik}=j[illegible] j_{sa}^{ik} - j_{sa}} \sum^{[illegible] + j_{sa} - j_{sa}^{ik})} \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i[illegible] + \Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_i[illegible] j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

j [illegible] $, j_{ik}, j^{sa}, j_i$ [illegible] $\sum_{k=1} \sum_{(j_s=1)}^{(\ )}$

$\sum_{[illegible] = j_{sa}^{ik}}^{\boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa}} \sum_{(j^{sa} = [illegible] + j_{sa} - j_{sa}^{ik})}^{(\ )} \sum_{j_i = j^{sa} + s - j_{sa}}^{\boldsymbol{l_i}}$

$$\sum_{n_i = \boldsymbol{n} + \mathbb{k}}^{n} \sum_{(n_{ik} = \boldsymbol{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)}$$

$$\sum_{n_{sa} = \boldsymbol{n} + \mathbb{k}_3 - j^{sa} + 1}^{n_{ik} + j_{ik} - j^{sa} - \mathbb{k}_2} \sum_{(n_s = \boldsymbol{n} - j_i + 1)}^{(n_{sa} + j^{sa} - j_i - \mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$j_s \ , j_{ik}, j^{sa}, j_i = \sum_{k=1} \sum_{(j_s=1)}^{(\ \ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ \ )} \sum_{j_i=j^{sa}+s-j_{sa}}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-\text{[illegible]})!}\cdot$$

$$\frac{(D-\text{[illegible]})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\ \text{[illegible]}\ \boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}\ \text{[illegible]}\ -s\ \text{[illegible]}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\Bbbk>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}\ \text{[illegible]}\ 1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\Bbbk_1,j_{sa}^{ik},\cdots,\Bbbk_2,j_{sa},\cdots,\text{[illegible]}\}$

$s\geq 6\wedge\boldsymbol{s}=s+\Bbbk\wedge$

$\Bbbk_z:z=3\wedge\Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_i}+j_{sa}-s)}\sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-\text{[illegible]})!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-\text{[illegible]}^{ik}_{sa})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(\text{[illegible]}_k-j^{ik}_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j^{ik}_{sa}-\boldsymbol{l_{ik}}-\text{[illegible]})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(\text{[illegible]}^{sa}+j^{ik}_{sa}-j_{ik}-\text{[illegible]}_{sa})!}\cdot$$

$$\frac{(\text{[illegible]}-\boldsymbol{l_i})!}{(D\text{[illegible]}-\boldsymbol{n}-\text{[illegible]})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \text{[illegible]} \wedge$

$1 \leq j_s \leq j_{ik} - j^{ik}_{sa} + 1 \wedge j_s + j^{ik}_{sa} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}\text{[illegible]}\, j_{sa} \wedge$

$j_{ik} + j_{sa} - j^{ik}_{sa} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + \text{[illegible]} - j_{sa} \leq j_i \leq \text{[illegible]} \wedge$

$\boldsymbol{l_{ik}} - j^{ik}_{sa} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j^{\text{[illegible]}} - j_{sa} > \text{[illegible]} \wedge \boldsymbol{l_i} + \text{[illegible]} - s = \text{[illegible]}_{\boldsymbol{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j^i_{sa} - 1 \wedge j^{\text{[illegible]}} < j_{sa} - 1 \wedge j_{sa}\text{[illegible]}\, j^{ik}_{sa} - 1\text{[illegible]}$

$\boldsymbol{s}\!: \{j^s_{sa}, \mathbb{k}_1, j\text{[illegible]}, \cdots, \mathbb{k}_2, \text{[illegible]}, \cdots, \mathbb{k}_3, j^i_{sa}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \text{[illegible]} \wedge$

$\mathbb{k}_z\!: z\,\text{[illegible]}\,3 \wedge \mathbb{k} = \mathbb{k}_1 + \text{[illegible]} + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{ik}_{sa}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j^{ik}_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1\geq\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}\geq\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j_{sa}^{i}\}\wedge$

$s\geq6\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\boldsymbol{s}:z=2\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\;)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}\text{[illegible]})}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\text{[illegible]}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\text{[illegible]}}$$

$$\frac{(n_i \text{[illegible]} - 1)!}{(j_{ik}-2)\text{[illegible]}(n_i-n_{ik}\text{[illegible]}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2\text{[illegible]}1)!}{(j^{sa}-j_{ik}-1)!\text{[illegible]}j_{ik}-n_{sa}\text{[illegible]}j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}\text{[illegible]}-\mathbb{k}_3-\text{[illegible]}}{(j_i-j^{sa}\text{[illegible]})!\cdot(n_{sa}\text{[illegible]}j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(\text{[illegible]}-1)!}{(n_s\text{[illegible]}j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(\text{[illegible]}+\boldsymbol{l}\text{[illegible]}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n}$[illegible]$n \wedge \boldsymbol{l_s} = 1 \wedge$[illegible]$\leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik}$[illegible]$j_{sa}^{ik} + 1$[illegible]$s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

j_{ik}[illegible]s[illegible]$- j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} +$[illegible]$> \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

D[illegible]$n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}}\ \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\ \sum_{j_i=s}^{\boldsymbol{l_{sa}}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}\ [illegible]\ \mathbb{k}_2+\mathbb{k}_3\ [illegible]\ j_{ik}+1)}^{(n_i-j_{ik}\ [illegible]\ \mathbb{k}_1+1)}$$

$$\sum_{[illegible]\ j^{sa}+1}^{n_{ik}+j_{ik}-[illegible]\ \mathbb{k}_2}\ \sum_{[illegible]=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}\ [illegible]\ \mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik}\ [illegible]}{[illegible]\ _{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - [illegible] - \mathbb{k}_2 - 1)!}{(j^{sa} - [illegible] - 1)! \cdot (n_{ik} [illegible]\ j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - [illegible] - \mathbb{k}_3 - 1)!}{(j_i [illegible]\ j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$\big((D \geq \boldsymbol{n} < [illegible] \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 [illegible] \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_i} - s + 1 > \boldsymbol{l_s} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n})\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$\text{[illegible]}S_{j_s, j_{ik}, j^{\text{[illegible]}}} = \sum_{k=1}^{\text{[illegible]}} \sum_{(j_s=\text{[illegible]}}^{(\text{[illegible]}} \sum_{\text{[illegible]}=j_{sa}^{ik}}^{\boldsymbol{l}_{ik}\text{[illegible]}} \sum_{(j^{sa}=j_{sa})}^{\text{[illegible]}a)} \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\text{[illegible]}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{\text{[illegible]}-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{\text{[illegible]}j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}}\wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j_{sa}^{i}\}\wedge$

$s\geq 6\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{()}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{()}\sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(\boldsymbol{l_i} + j_{sa} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j_{sa}^{i}\right\}\wedge$

$s\geq 6\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j^{ik}_{sa}-\boldsymbol{l_{ik}}-j_{sa})!}{(\boldsymbol{l_{sa}}+j^{ik}_{sa}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j^{ik}_{sa} + 1 \wedge j_s + j^{ik}_{sa} - 1 \leq j_{ik} \leq j^{sa} + j^{ik}_{sa} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j^{ik}_{sa} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j^{ik}_{sa} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j^{ik}_{sa} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j^i_{sa} - 1 \wedge j^{ik}_{sa} < j_{sa} - 1 \wedge j^s_{sa} = j^{ik}_{sa} - 1 \wedge$

$\boldsymbol{s}: \{j^s_{sa}, \Bbbk_1, j^{ik}_{sa}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j^i_{sa}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{ik}_{sa}} \sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-\text{[illegible]}-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-\text{[illegible]}}{(n_s+j_i\text{[illegible]}\boldsymbol{n}-1)!\cdot(\boldsymbol{n}\text{[illegible]})!}\cdot$$

$$\frac{\text{[illegible]}+j_{sa}^{ik}-\boldsymbol{l}_{\boldsymbol{i}\text{[illegible]}}\text{[illegible]}j_{sa})!}{(\boldsymbol{l}_{\boldsymbol{sa}}+j_{s}\text{[illegible]}-j^{s}\text{[illegible]})!\cdot\text{[illegible]}^{a}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l}_{\boldsymbol{i}})!}{(D+j_i-\text{[illegible]}-\boldsymbol{l}_{\boldsymbol{i}})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l}_{\boldsymbol{s}}=1\wedge\boldsymbol{l}_{\boldsymbol{s}}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+\text{[illegible]}_{sa}-1\ \text{[illegible]}\leq j^{s}\text{[illegible]}j_{sa}^{ik}-\text{[illegible]}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+\text{[illegible]}-s\wedge j^{sa}+\text{[illegible]}-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l}_{\boldsymbol{ik}}-j_{sa}^{ik}+1=\text{[illegible]}\wedge\boldsymbol{l}_{\boldsymbol{sa}}+j_{sa}^{ik}-j_{s}\text{[illegible]}\geq\boldsymbol{l}_{\boldsymbol{ik}}\wedge\boldsymbol{l}\text{[illegible]}+j_{sa}-s=\boldsymbol{l}_{\boldsymbol{sa}}\wedge$

$D+s\text{[illegible]}\boldsymbol{n}\text{[illegible]}\boldsymbol{l}_{\boldsymbol{i}}\leq D\text{[illegible]}+s-\boldsymbol{n}-1\text{[illegible]}$

$D\geq\boldsymbol{n}<n\wedge I\text{[illegible]}>0\wedge$

$j_{sa}<\text{[illegible]}-1\wedge j_{sa}^{ik}<\text{[illegible]}-1\wedge j_{sa}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\mathbb{k}_1,\text{[illegible]},\cdots,\mathbb{k}_2,j_{s}\text{[illegible]}\cdots,\mathbb{k}_3,j_{sa}^{i}\}\wedge$

$s\geq\text{[illegible]}=s+\mathbb{k}\wedge$

$\mathbb{k}_z: z=3\wedge\text{[illegible]}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i}=\sum_{k=1}\ \sum_{(j_s=1)}^{(\ \ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}\ \sum_{(j^{sa}=\boldsymbol{l}_{\boldsymbol{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{n}+j_{sa}-s)}\ \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} = j^{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 1 \wedge S = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}\text{[illegible]})}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\text{[illegible]}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}\text{[illegible]})}$$

$$\frac{(n_i-\text{[illegible]}-1)!}{(j_{ik}-2)\text{[illegible]}(n_i-n_{ik}\text{[illegible]}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2\text{[illegible]}1)!}{(j^{sa}-j_{ik}-1)!\text{[illegible]}-n_{s}\text{[illegible]}j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-\text{[illegible]}-\mathbb{k}_3-\text{[illegible]})}{(j_i-j^{sa}-\text{[illegible]})!\cdot(n_{sa}\text{[illegible]}j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(\text{[illegible]}-1)!}{(n_s\text{[illegible]}j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\text{[illegible]}j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{s}\text{[illegible]}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \text{[illegible]} < n \wedge \boldsymbol{l_s} = 1 \text{[illegible]} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq \text{[illegible]} - j_{sa}^{ik} + 1 \text{[illegible]}s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + \text{[illegible]} - j_{sa}^{ik} \leq j^{\text{[illegible]}} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \text{[illegible]} > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$\text{[illegible]} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{()} \sum_{(j_s=1)}^{()}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{()} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{()} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_i+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{\text{[illegible]}=1}^{\text{[illegible]}} \sum_{(j_s=1)}^{(\text{[illegible]})}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{\text{[illegible]}}-s)}^{(\ )} \sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s\text{[illegible]}j_{sa}}^{\text{[illegible]}}$$

$$\sum_{\text{[illegible]}+\mathbb{k}}^{n} \sum_{(n_{ik}=\text{[illegible]}j_{ik}+1)}^{(\text{[illegible]}-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}\text{[illegible]}-j^{sa}+1}^{(\text{[illegible]}_{ik}+j_{ik}-j\text{[illegible]}\mathbb{k}_2)} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(\text{[illegible]}2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{\text{[illegible]}} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \land$

$D \geq \boldsymbol{n} < n \land I = \mathbb{k} > 0 \land$

$j_{sa} < j_{sa}^{i} - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} = j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \land$

$s \geq 6 \land \boldsymbol{s} = s + \mathbb{k} \land$

$\mathbb{k}_z: z = 3 \land \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa} [illegible]} = \sum [illegible] \sum_{[illegible] =1)}^{(\ )}$$

$$\sum_{j_{ik} - [illegible]^{a} + j^{ik}_{sa} - j_{sa}} \sum_{(j^{s[illegible]} + j_{sa} - [illegible]}^{(\ )} \sum_{[illegible] - D - j_{sa}^{ik}}^{\boldsymbol{n}}$$

$$\sum_{n_{i} [illegible] + \mathbb{k}}^{n} \sum_{(n_{ik} = \boldsymbol{n} + \mathbb{k}_2 + \mathbb{k}_3 - j_{ik} + 1)}^{(n_i - j_{ik} - \mathbb{k}_1 + 1)}$$

$$\sum_{n_{sa} = \boldsymbol{n} + \mathbb{k}_3 - j^{sa} + 1}^{n_{ik} + j_{i[illegible]}^{sa} - \mathbb{k}_2} \sum_{(n_s = \boldsymbol{n} - j_i + 1)}^{(n_{sa} + j^{sa} - j_i - \mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{([illegible]^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$\text{[illegible]}S_{\text{[illegible]} j_{ik}, j^{sa}, j_{\text{[illegible]}}} = \sum_{\text{[illegible]}=1}^{\text{[illegible]}} \sum_{(j_s=1)}^{(\text{[illegible]}}$$

$$\sum_{j_{ik}\text{[illegible]}^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}\text{[illegible]}\boldsymbol{n}+j_{sa}-D\text{[illegible]}s)}^{(\boldsymbol{n}+\text{[illegible]}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{\text{[illegible]}} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\colon \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z\colon z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{=j^{sa}+j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{\left(\boldsymbol{l_{ik}}-j_{ik}\right)!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\Bbbk>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}$ [illegible] $1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\Bbbk_1,j_{sa}^{ik},\cdots,\Bbbk_2,j_{sa},\cdots,\Bbbk_3,j_{sa}^{i}\right\}\wedge$

$s\geq 6\wedge\boldsymbol{s}=s+\Bbbk\wedge$

$\Bbbk_z:z=3\wedge\Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3$ [illegible]

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\ )}$$

$$\sum_{[illegible]}^{[illegible]}\ \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}^{(\boldsymbol{n}+j_{sa}-s)}\ \sum_{j_i=j^{sa}+s-j_{sa}}$$

where the first sum's printed lower limit ends in $j^{sa}+j_{sa}^{ik}-j_{sa}$.

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}^{ik}-D-s}^{\boldsymbol{n}+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_s = 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdot, \mathbb{k}_2, j_{sa}, \cdot, \mathbb{k}_3, j_{sa}^{i}\}$

$s \geq 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{n}+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-\text{[illegible]}-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-\text{[illegible]})!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}\text{[illegible]})!\cdot(\text{[illegible]}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\text{[illegible]}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + \text{[illegible]}_{sa} - 1 \leq \text{[illegible]} \leq j^{s\text{[illegible]}} - j_{sa}^{ik} - \text{[illegible]} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + \text{[illegible]} - s \land j^{sa} + \text{[illegible]} - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \text{[illegible]} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{s\text{[illegible]}} = \boldsymbol{l_{ik}} \land \boldsymbol{l}\text{[illegible]} + j_{sa} - s = \boldsymbol{l_{sa}} \land$

$D + s \text{[illegible]} \boldsymbol{n} \text{[illegible]} \boldsymbol{l_i} \leq D \text{[illegible]} + s - \boldsymbol{n} - 1 \text{[illegible]}$

$D \geq \boldsymbol{n} < n \land I \text{[illegible]} > 0 \land$

$j_{sa} < \text{[illegible]} - 1 \land j_{sa}^{ik} < \text{[illegible]} - 1 \land j_{sa} = j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \{j_{sa}^s, \mathbb{k}_1, \text{[illegible]}, \cdots, \mathbb{k}_2, j_s \text{[illegible]} \cdots, \mathbb{k}_3, j_{sa}^i\} \land$

$s \geq \text{[illegible]} = s + \mathbb{k} \land$

$\mathbb{k}_z: z = 3 \land \text{[illegible]} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{n}+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{s}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}-j_{sa}^{ik}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}}\wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}^{i}>j_{sa}^{s}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j_{sa}^{i}\}\wedge$

$s\geq 5\wedge S=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}\text{[illegible]})}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\text{[illegible]}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\text{[illegible]})}$$

$$\frac{(n_i - \text{[illegible]} - 1)!}{(j_{ik}-2)\text{[illegible]}(n_i-n_{ik}\text{[illegible]}+1)!} \cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2\text{[illegible]}1)!}{(j^{sa}-j_{ik}-1)!\text{[illegible]}-n_{s}\text{[illegible]}-j^{sa}-\mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa}-\text{[illegible]}-\mathbb{k}_3-\text{[illegible]})}{(j_i-j^{sa}-\text{[illegible]})!\cdot(n_{sa}\text{[illegible]}j^{sa}-n_s-j_i-\mathbb{k}_3)!} \cdot$$

$$\frac{(\text{[illegible]}-1)!}{(n_s\text{[illegible]}j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{s\text{[illegible]}}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!} \cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \text{[illegible]} < n \land \boldsymbol{l_s} = 1 \text{[illegible]} \leq D - \boldsymbol{n} + 1 \land$

$1 \leq j_s \leq \text{[illegible]} - j_{sa}^{ik} + 1 \text{[illegible]}s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + \text{[illegible]} - j_{sa}^{ik} \leq j\text{[illegible]} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + \text{[illegible]} > \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \land$

$\text{[illegible]} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \land$

$D \geq \boldsymbol{n} < n \land I = \mathbb{k} > 0 \land$

$j_{sa} < j_{sa}^{i} - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} = j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \land$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1}^{(\ )} \sum_{(j_s=1)}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}^{(\boldsymbol{l_{ik}}+j_{sa}-j_{sa}^{ik})} \sum_{[illegible]=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}[illegible]}^{n} \sum_{[illegible]=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}[illegible])}^{([illegible]-j_{ik}-\mathbb{k}[illegible]1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}[illegible]-j^{sa}+1}^{([illegible]-j^{sa}-\mathbb{k}_2} \sum_{([illegible]_i+1)}^{[illegible]+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i [illegible] n_{ik} - 1)!}{(j_{ik} [illegible])! \cdot (n_i [illegible] n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{s}[illegible] \mathbb{k}_2 - 1)!}{([illegible] j_{ik} [illegible])! \cdot (n[illegible] j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - [illegible] - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

D [illegible] $n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i} \right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(\ )} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}} \sum_{j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}} \sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)} $$

$$ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot $$

$$ \frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot $$

$$ \frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot $$

$$ \frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot $$

$$ \frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot $$

$$ \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} $$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1}^{()} \sum_{(j_s=1)}^{()} $$

$$ \sum_{j_{ik}=\boldsymbol{l_{ik}}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}} $$

$$ \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} $$

$$ \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} $$

$$ \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot $$

$$ \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot $$

$$ \frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot $$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\right\}$

$s > 6 \wedge \boldsymbol{s} = 3 + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3$

$$_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\;\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \land$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \land j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \land$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq j_i+j_{sa}-s \land j^{sa}+s-j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 \geq \boldsymbol{l_s} \land \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} \geq \boldsymbol{l_{ik}} \land \boldsymbol{l_i}+j_{sa}-s = \boldsymbol{l_{sa}} \land$

$D+j_s-\boldsymbol{n} < \boldsymbol{l_i} \leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1 \land$

$D \geq \boldsymbol{n} < n \land I = \Bbbk > 0 \land$

$j_{sa} < j_{sa}^{i}-1 \land j_{sa}^{ik} < j_{sa}-1 \land j_{sa}^{s} = j_{sa}^{ik}-1 \land$

$\boldsymbol{s}\colon \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \land$

$s \geq 6 \land \boldsymbol{s} = s+\Bbbk \land$

$\Bbbk_z\colon z = 3 \land \Bbbk = \Bbbk_1+\Bbbk_2+\Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-j_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \ge \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_{ik}} \le D - \boldsymbol{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \le j_i \le \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + \boldsymbol{l_s} - \boldsymbol{n} < \boldsymbol{l_i} \le D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_i+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{n_s=(\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$((D \geq \boldsymbol{n}) < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_i} - s + 1 > \boldsymbol{l_s} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$f_Z(j_s, j_{ik}, j^{sa}, j_i) = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - [illegible])!} \cdot$$

$$\frac{(D - [illegible])!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq$ [illegible] $\wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} +$ [illegible] $- s >$ [illegible] $\wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik}$ [illegible] $\wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots$ [illegible] $j_{sa}\}$ [illegible]

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$ [illegible]

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j^{ik}}\sum_{(j^{sa}=j_{sa}^{ik})}^{(\ )}\sum_{j_i=s+1}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=[illegible]+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}[illegible])}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-[illegible]+1}^{n_{ik}-j_{ik}-[illegible]}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}-j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(\boldsymbol{l_i}+j_{sa}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\colon \left\{ j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z\colon z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot
\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot
\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot
\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot
\left. \frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!} \right) +
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=s+1}^{\boldsymbol{l_i}} \right.
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot
$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}\sum_{(j_s=1)}^{()}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{()}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})}\sum_{j_i=j^{sa}+1}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \land$

$D \geq \boldsymbol{n} < n \land I = \mathbb{k} > 0 \land$

$j_{sa} < j_{sa}^{i} - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} = j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \land$

$s \geq 6 \land \boldsymbol{s} = s + \mathbb{k} \land$

$\mathbb{k}_z: z = 3 \land \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=\ldots} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3+j_i-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!}\right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=s+1}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\colon \{j_{sa}^{s}, \cdots, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z\colon z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}\ \sum_{j_{ik}=j_{sa}^{ik}}\ \sum_{(j^{sa}=j_{sa})}^{(\ )}\ \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-[illegible])!}{(D[illegible]s-[illegible]\boldsymbol{l}_{[illegible]})!\cdot([illegible]\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{([illegible])}\sum_{j_{ik}=[illegible]+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l}_{sa})}\sum_{j_i=s+1}^{\boldsymbol{l}_i}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l}_{ik}-j_{sa}^{ik})!}{(\boldsymbol{l}_{ik}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l}_i+j_{sa}-\boldsymbol{l}_{sa}-s)!}{(j^{sa}+\boldsymbol{l}_i-j_i-\boldsymbol{l}_{sa})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\colon \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z\colon z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,\ldots,j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\sum_{j_i=s+1}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_i} - s + 1 > \boldsymbol{l_s} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n})\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i} \right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=s+1}^{\boldsymbol{l_i}} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_s}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_{sa}}-j_i-\boldsymbol{l_i})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \land$

$D \geq \boldsymbol{n} < n \land I = \Bbbk > 0 \land$

$j_{sa}^{s} < j_{sa}^{i} - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} = j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \land$

$s \geq 6 \land \boldsymbol{s} = s + \Bbbk \land$

$\Bbbk_z: z = 3 \land \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(n-\boldsymbol{l_i})!}{(D-s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{s=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_{sa}})}\sum_{j_i=j^{sa}+s-j_{sa}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j_{sa}^{i}\right\}\wedge$

$s\geq 6\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s,\,[illegible],\,j^{sa},j_i}\left(\sum_{k=1}^{[illegible]}\sum_{(j_s=1)}^{[illegible]}\sum_{j_{ik}=j_{sa}^{ik}}^{[illegible]}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_{sa}})}\sum_{j_i=j^{sa}+s-j_{sa}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2 [illegible] \mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3 [illegible] ^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n} [illegible])}^{(n_{sa}+j [illegible] -j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - [illegible] -1)!}{([illegible] (n_i - [illegible] -j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_s [illegible] -\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1) [illegible] (n_{ik}+j [illegible] -n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa} [illegible] _s-\mathbb{k}_3 [illegible] 1)!}{(j_i [illegible] ^{sa}-1)!\cdot(n_ [illegible] +j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq$ [illegible] $n \wedge \boldsymbol{l_s} = 1 \wedge$ [illegible] $\leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik}$ [illegible] $j_{sa}^{ik} + 1$ [illegible] $_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

j_{ik} [illegible] $- j_{sa}^{ik} \leq j^{sa}$ [illegible] $\leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} +$ [illegible] $> \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

[illegible] $n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=j^{sa}+s-j_{sa}} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot
$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\;)}\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_{ik}}}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\;)}\sum_{j_i=j^{sa}+s-j_{sa}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+j^{sa}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+j_i-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\land\boldsymbol{l_s}=1\land\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\land$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\land j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\land$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\land j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\colon \left\{ j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z\colon z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=s}^{\boldsymbol{l_i}} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=s+1}^{\boldsymbol{l_i}} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j^{ik}_{sa})!}{(\boldsymbol{l_{ik}}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_s}-j^{ik}_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j^{ik}_{sa} + 1 \wedge j_s + j^{ik}_{sa} - 1 \leq j_{ik} \leq j^{sa} + j^{ik}_{sa} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j^{ik}_{sa} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j^{ik}_{sa} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j^{ik}_{sa} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + j_i - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j^{i}_{sa} - 1 \wedge j^{ik}_{sa} < j_{sa} - 1 \wedge j^{s}_{sa} = j^{ik}_{sa} - 1 \wedge$

$\boldsymbol{s}: \{j^{s}_{sa}, \Bbbk_1, j^{ik}_{sa}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j^{i}_{sa}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j^{ik}_{sa}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(\boldsymbol{l_i} + j_{sa} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i - s)!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik}$ [illegible] $1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, [illegible], j_i} = \left(\sum_{k=1}^{[illegible]} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\;)}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\;)}\sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge s \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z : z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\;)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\;)} \sum_{j_i=s} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{(\;)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot
$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot (j^{sa} - [illegible])!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\left.\frac{(D - [illegible])!}{(D + [illegible] - \boldsymbol{n} - \boldsymbol{l_i})! \cdot ([illegible] - j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} < j_i \leq \boldsymbol{n} [illegible]$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = [illegible] \wedge \boldsymbol{l_i} + j_{sa} - s [illegible] \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 [illegible]$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, [illegible] j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\}$

$s [illegible] 6 \wedge \boldsymbol{s} = [illegible] + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + [illegible]$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=\ldots+j_{sa}-s)}\sum_{j_i=\boldsymbol{l_i}+\ldots}\right.$$

$$\sum_{n_i=\ldots\mathbb{k}}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2\ldots j_{ik}+1)}^{(\ldots j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\ldots-j^{sa}+1}^{\ldots+j_{ik}-j^{sa}\ldots}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$$

$$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$$

$$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$$

$$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$$

$$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$$

$$ {}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_s}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\land\boldsymbol{l_s}=1\land\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\land$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\land j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\land$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\land j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\land$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1\geq\boldsymbol{l_s}\land\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}\geq\boldsymbol{l_{ik}}\land\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\land$

$D+j_i-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1\land$

$D\geq\boldsymbol{n}<n\land I=\Bbbk>0\land$

$j_{sa}<j_{sa}^{i}-1\land j_{sa}^{ik}=j_{sa}-1\land j_{sa}^{s}=j_{sa}^{ik}-1\land$

$\boldsymbol{s}:\{j_{sa}^{s},\Bbbk_1,j_{sa}^{ik},\cdots,\Bbbk_2,j_{sa},\cdots,\Bbbk_3,j_{sa}^{i}\}\land$

$s\geq6\land\boldsymbol{s}=s+\Bbbk\land$

$\Bbbk_z:z=3\land\Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}\ \sum_{j_{ik}=j_{sa}^{ik}}\ \sum_{(j^{sa}=j_{sa})}^{(\ )}\ \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{([illegible]-\boldsymbol{l_i})!}{(D-s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\ \sum_{([illegible]=1)}^{(\ )}\ \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}}\ \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\ \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{\left(\boldsymbol{l_{ik}} - j_{ik}\right)! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_i} - s + 1 > \boldsymbol{l_s} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa}^{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa}^{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{n} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ \ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ \ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-[illegible])!}{(D+s-[illegible]-\boldsymbol{l}_{[illegible]})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=[illegible]}^{[illegible]} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-[illegible]}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{[illegible]} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq \boldsymbol{n}<n\wedge \boldsymbol{l_s}=1\wedge \boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq \boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1\wedge$

$D\geq \boldsymbol{n}<n\wedge I=\Bbbk>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}=j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\Bbbk_1,j_{sa}^{ik},\cdots,\Bbbk_2,j_{sa},\cdots,\Bbbk_3,j_{sa}^{i}\right\}\wedge$

$s\geq 6\wedge \boldsymbol{s}=s+\Bbbk\wedge$

$\Bbbk_z: z=3\wedge \Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)}\sum_{j_i=j^{sa}+s-j_{sa}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-\Bbbk_1-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_i} \leq D - \boldsymbol{n} + 1 \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \land$

$D \geq \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \land$

$D \geq \boldsymbol{n} < n \land I = \Bbbk > 0 \land$

$j_{sa} < j_{sa}^{i} - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} = j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\right\} \land$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z : z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-\Bbbk_1-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left. \frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!} \right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(j_{sa} - j_{sa}^{ik})!}{(j_{sa} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} \right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_s = 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \ldots, \mathbb{k}_2, j_{sa}, \ldots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{()} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{()} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{s=1}\sum_{(j_s=1)}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{n}+j_{sa}^{ik}}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}\sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=\cdots} \sum_{(j_s=1)} \sum_{j_{ik}=\cdots} \sum_{(j^{sa}=j_{sa})} \sum_{j_i=s} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}\sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_{ik}} \leq D - \boldsymbol{n} + 1 \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \land$

$\boldsymbol{l_{ik}} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \land$

$D \geq \boldsymbol{n} < n \land I = \mathbb{k} > 0 \land$

$j_{sa} < j_{sa}^{i} - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} = j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}\colon \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \land$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z : z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$ {}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right. $$

$$ \sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} $$

$$ \sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)} $$

$$ \frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - \Bbbk_1 - j_{ik} + 1)!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot $$

$$ \frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot $$

$$ \frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot $$

$$ \left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) + $$

$$ \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \right. $$

$$ \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} $$

$$ \sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} $$

$$ \sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)} $$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \text{[illegible]})!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\text{[illegible]} - j_{sa}^{ik})!}{(\text{[illegible]} - j_{ik})! \cdot (\text{[illegible]} - j_{sa}^{ik})!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - \text{[illegible]}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \text{[illegible]})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s +$ [illegible] $j_{ik} \leq j$ [illegible] $+ j_{sa}^{ik} - j$ [illegible] $\wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i$ [illegible] $_{a} - s \wedge j^{sa} +$ [illegible] $- j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} -$ [illegible] $= \boldsymbol{l_{ik}} \wedge \boldsymbol{l}$ [illegible] $j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D +$ [illegible] $\boldsymbol{n} < \boldsymbol{l_i} \leq$ [illegible] $\boldsymbol{l_s} + s - \boldsymbol{n} -$ [illegible]

$D \geq \boldsymbol{n} < n \wedge$ [illegible] $\mathbb{k} > 0 \wedge$

j_{sa} [illegible] $j_{sa}^{i} - 1 \wedge j_{sa}^{ik}$ [illegible] $_{a} - 1 \wedge$ [illegible] $= j_{sa}^{ik} - 1 \wedge$

[illegible] $\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{s}$ [illegible] $\cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s$

$\mathbb{k}_z \colon z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-[illegible])!}{(D[illegible]s-[illegible]\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l_i}[illegible]+j_{sa}^{ik}-D-s}^{\boldsymbol{n}+j[illegible]s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{([illegible])} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}\ \sum_{j_{ik}=j_{sa}^{ik}}\ \sum_{(j^{sa}=j_{sa})}^{(\ )}\ \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(D-\mathbf{l_i})!}{(D+s-\mathbf{n}-\mathbf{l_i})!\cdot(\mathbf{n}-s)!}\Bigg)+$$

$$\Bigg(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\sum_{j_i=\mathbf{l_{sa}}+\mathbf{n}+s-D-j_{sa}}^{\mathbf{n}}$$

$$\sum_{n_i=\mathbf{n}+1}^{n}\sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)!\cdot(\mathbf{n}-j_i)!}\cdot$$

$$\frac{\left(\mathbf{l_{sa}}+j_{sa}^{ik}-\mathbf{l_{ik}}-j_{sa}\right)!}{\left(\mathbf{l_{sa}}+j_{sa}^{ik}-j^{sa}-\mathbf{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(D-\mathbf{l_i})!}{(D+j_i-\mathbf{n}-\mathbf{l_i})!\cdot(\mathbf{n}-j_i)!}\Bigg)$$

$D \geq \mathbf{n} < n \wedge \mathbf{l_s} = 1 \wedge \mathbf{l_s} \leq D - \mathbf{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$

$\mathbf{l_{ik}} - j_{sa}^{ik} + 1 > \mathbf{l_s} \wedge \mathbf{l_{sa}} + j_{sa}^{ik} - j_{sa} = \mathbf{l_{ik}} \wedge \mathbf{l_i} + j_{sa} - s = \mathbf{l_{sa}} \wedge$

$D + j_{sa} - \mathbf{n} < \mathbf{l_{sa}} \leq D + \mathbf{l_s} + j_{sa} - \mathbf{n} - 1 \wedge$

$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$
{}_{fz}S_{j_s\;,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - \boldsymbol{l_s})! \cdot (\boldsymbol{l_s} - j_{sa}^{ik})!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} \right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} \leq \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - s \wedge$

$D \geq \boldsymbol{n} < n \wedge I - \mathbb{k} > 0 \wedge$

$j_{sa} < j_{ik} - 1 \wedge j_{sa}^{ik} < j^{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}^{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 3 \wedge \mathbb{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\ldots)!}{(D\ldots s-\ldots\boldsymbol{l}_{\ldots})!\ldots(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l}_{ik}+\boldsymbol{n}-D}\ \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\ \sum_{j_i=\boldsymbol{l}_{sa}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_s - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}^{(\ )}\sum_{(j_s=\ldots)}^{\ldots}\right.$$

$$\sum_{j_{ik}=j^{sa}+j^{ik}_{sa}-j_{sa}}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}\ldots)}^{(\boldsymbol{n}+j_{sa}-s)}\ \sum_{\ldots j^{sa}\ldots-j_{sa}}$$

$$\sum_{n_i\ldots}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\ldots+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}\ldots+\Bbbk_3-j^{sa}\ldots}^{n_{ik}+\ldots j^{sa}-\Bbbk_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}\ldots j_i-\Bbbk_3)}$$

$$\frac{(\ldots n_i-n_{ik}-1)!}{(j_{ik}-\ldots)\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j\ldots-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(\ldots j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j^{ik}_{sa})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j^{ik}_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$\ldots\geq\boldsymbol{n}\ldots\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j^{ik}_{sa}+1\wedge j_s+j^{ik}_{sa}-1\leq j_{ik}\leq j^{sa}+j^{ik}_{sa}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j^{ik}_{sa}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j^{ik}_{sa}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j^{ik}_{sa}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=\text{[illegible]}}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=\text{[illegible]}}^{(\text{[illegible]}} \sum_{\text{[illegible]}=s}\right.$$

$$\sum_{\text{[illegible]}\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}\text{[illegible]}-j_{ik}+1)}^{\text{[illegible]}-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\text{[illegible]}\mathbb{k}_3-j^{sa}+1}^{\text{[illegible]}n_{ik}+j_{ik}-\text{[illegible]}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{\text{[illegible]}n_i - n_{ik} - 1)!}{\text{[illegible]})! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{\text{[illegible]}} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!}\right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_s^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^i\} \wedge$

$s \geq 6 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\mathbf{n}+\Bbbk}^{n} \sum_{(n_{ik}=\mathbf{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} \sum_{n_{sa}=\mathbf{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)!\cdot(\mathbf{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\mathbf{l_i})!}{(D+s-\mathbf{n}-\mathbf{l_i})!\cdot(\mathbf{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=\mathbf{n}+j_{sa}^{ik}-D-j_{sa}}^{\mathbf{n}+j_s^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\Bbbk}^{n} \sum_{(n_{ik}=\mathbf{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} \sum_{n_{sa}=\mathbf{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \ge \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \le D - \boldsymbol{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \le j_i \le \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \le D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \ge 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$f_{z\text{[illegible]}, j^{sa}, j_i} = \left(\sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}\ \sum_{j_{ik}=j_{sa}^{ik}}\ \sum_{(j^{sa}=j_{sa})}^{(\ )}\ \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=[illegible])}^{(\ )}\right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\ \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\ \sum_{j_i=[illegible]+s-[illegible]-j_{sa}^{ik}}$$

$$\sum_{n_i=[illegible]}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+[illegible]+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=[illegible]+\mathbb{k}_3-j^{sa}}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}[illegible]j_i-\mathbb{k}_3)}$$

$$\frac{([illegible]n_i-n_{ik}-1)!}{(j_{ik}-[illegible])!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{([illegible]-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$[illegible] > \boldsymbol{n} [illegible] \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \le D-\boldsymbol{n}+1 \wedge$

$1 \le j_s \le j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \le j_{ik} \le j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \le j^{sa} \le j_i+j_{sa}-s \wedge j^{sa}+s-j_{sa} \le j_i \le \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa}^{ik} - \boldsymbol{n} < \boldsymbol{l_{ik}} \leq D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{ j_{sa}^{s}, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i} \} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=[illegible])}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=[illegible])}^{(\ [illegible])} \sum_{[illegible]=s} \right.$$

$$\sum_{[illegible]\boldsymbol{n}+\Bbbk\ (n_{ik}[illegible]}^{n} \sum_{[illegible]-j_{ik}+1)}^{[illegible]-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}[illegible]\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-[illegible]-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{([illegible]n_i - n_{ik} - 1)!}{[illegible])! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{i}[illegible] - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa} - j_{sa}^{ik} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} > D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 4 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\;)} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-j_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(\boldsymbol{l_i}+j_{sa}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge I = 1 \wedge \boldsymbol{l_i} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_i} - s + 1 > 0 \wedge$

$\boldsymbol{l_i} > D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa}^{i} = j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$
{}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\dots-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-\dots 1}^{n_{ik}+j_{ik}-j^{sa}\dots} \sum_{(n_s=\boldsymbol{n}-j_i+\dots)}^{(n_{sa}+j^{sa}\dots j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i - n_{ik} \dots 1)!}{(j_{ik} \dots 2)! \cdot (\dots n_{ik} \dots j_{ik} + 1)!} \cdot
$$

$$
\frac{(\dots - n_{sa} \dots \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (\dots + j_{ik} \dots n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - \dots - \mathbb{k}_3 - 1)!}{(j_i - \dots - 1)! \cdot (n \dots + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot
$$

$$
\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} \right)
$$

$\dots \geq \boldsymbol{n} \dots \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \land$

$\boldsymbol{l_{ik}} > D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} = j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 6 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}^{()} \sum_{(J=1)}^{()}\right.
$$

$$
\sum_{j_{ik}=j_s+\boldsymbol{n}-D}^{\boldsymbol{n}+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()} \sum_{j_i=j^{sa}+s-j_{sa}}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot
$$

$$
\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \land$

$\boldsymbol{l_i} > D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \land$

$D \geq \boldsymbol{n} < n \land I = \mathbb{k} > 0 \land$

$j_{sa} < j_{sa}^{i} - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} = j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \{j_{sa}^{s}, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \land$

$s \geq 6 \land \boldsymbol{s} = s + \mathbb{k} \land$

$\mathbb{k}_z: z = 3 \land \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$\sum_{[illegible]\, j^{sa}, j_i} \left(\sum_{[illegible]=1}^{[illegible]} \sum_{(j_s=1)}^{([illegible]} \sum_{[illegible]_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}^{[illegible]} \sum_{[illegible]^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-[illegible]D)}^{([illegible] j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{[illegible]} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} \right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{[illegible]}} = \sum_{k=1} \sum_{(j_s=[illegible])} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})} \sum_{j_i=s}$$

$$\sum_{n_i=[illegible]+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{([illegible]-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{[illegible]j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\mathbf{l_{ik}} - j_{sa}^{ik} + 1 = \mathbf{l_s} \wedge \mathbf{l_{sa}} + j_{sa}^{ik} - j_{sa} = \mathbf{l_{ik}} \wedge \mathbf{l_i} + j_{sa} - s > \mathbf{l_{sa}} \wedge$

$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\mathbf{s}: \left\{ j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 7 \wedge \mathbf{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}^{\mathbf{l_i}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot$$

$$\frac{(\mathbf{l_i} + j_{sa} - \mathbf{l_{sa}} - s)!}{(\mathbf{l_i} + j_{sa} - j_i - \mathbf{l_{sa}})! \cdot (j_i - s)!} \cdot$$

$$\frac{(D - \mathbf{l_i})!}{(D + j_i - \mathbf{n} - \mathbf{l_i})! \cdot (\mathbf{n} - j_i)!}$$

$D \geq \mathbf{n} < n \wedge \mathbf{l_s} = 1 \wedge \mathbf{l_i} \leq D + s - \mathbf{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$

$\mathbf{l_{ik}} - j_{sa}^{ik} + 1 = \mathbf{l_s} \wedge \mathbf{l_{sa}} + j_{sa}^{ik} - j_{sa} > \mathbf{l_{ik}} \wedge \mathbf{l_i} + j_{sa} - s = \mathbf{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k[illegible]} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{[illegible]} \sum_{(j[illegible]j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk[illegible]}^{n} \sum_{[illegible]=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{[illegible]j_{ik}[illegible]+1)} \sum_{n_{sa}=\boldsymbol{n}[illegible]_3-j^{sa}+1}^{n_{ik}+[illegible]-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{[illegible]_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j[illegible]j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$ {}_{fz}S_{j_{s}\text{[illegible]},j_{ik},j^{s}\text{[illegible]}} = \sum_{k\text{[illegible]}} \sum_{(\text{[illegible]}=1)}^{(\;)} $$

$$ \sum_{j_{ik}\text{[illegible]}} \sum_{(j^{sa}=j\text{[illegible]})} \sum_{j_i=s}^{\boldsymbol{l_{sa}}+s-j_{s}\text{[illegible]}} $$

$$ \sum_{n_{\text{[illegible]}}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} $$

$$ \sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_i\text{[illegible]}j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)} $$

$$ \frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{\text{[illegible]}(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{\text{[illegible]}(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot $$

$$ \frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot $$

$$ \frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot $$

$$ \frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} - j_{sa})!} \cdot $$

$$ \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} $$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq \boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq \boldsymbol{n}<n\wedge I=\Bbbk>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\cdots,\Bbbk_1,j_{sa}^{ik},\cdots,\Bbbk_2,j_{sa},\cdots,\Bbbk_3,j_{sa}^{i}\}\wedge$

$s\geq 7\wedge \boldsymbol{s}=s+\Bbbk\wedge$

$\Bbbk_z:z=3\wedge \Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3\Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\sum_{k=1}^{(\ )}\sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}\ \sum_{(j^{sa}=j_{sa})}^{(j_i+j_{sa}-s)}\ \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq \boldsymbol{n}<n\wedge \boldsymbol{l_s}=1\wedge \boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{ j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i} \} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$ {}_{j}S_{j_{ik},j^{sa},j_i} = \sum_{[illegible]=1} \sum_{(j_s=1)}^{([illegible])} \sum_{j_{ik}=[illegible]\,j_{sa}^{ik}}^{[illegible]} \sum_{(j^{sa}=[illegible]\,j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=j^{sa}+s-j_{sa}}^{[illegible]} $$

$$ \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{[illegible]} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} $$

$$ \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} $$

$$ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot $$

$$ \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot $$

$$ \frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot $$

$$ \frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot (j^{sa} - j_{sa})!} \cdot $$

$$ \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} $$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik},j^{\text{[illegible]}}} = \sum_{k=1}^{\text{[illegible]}} \sum_{(j_s=\text{[illegible]})}^{\text{[illegible]}} \sum_{j_{ik}=j_{sa}^{ik}}^{\text{[illegible]}} \sum_{(j^{sa}=j_{sa})}^{(\text{[illegible]}\boldsymbol{l_{sa}})} \sum_{j_i=s}^{\boldsymbol{l_i}} $$

$$ \sum_{n_i=\text{[illegible]}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(\text{[illegible]}-j_{ik}-\mathbb{k}_1+1)} $$

$$ \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{\text{[illegible]}_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} $$

$$ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot $$

$$ \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot $$

$$ \frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot $$

$$ \frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot (j^{sa} - j_{sa})!} \cdot $$

$$ \frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot $$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\;)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=j^{sa}+s-j_{sa}}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s}=1 \wedge \boldsymbol{l_i} \leq D+s-\boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq j_i+j_{sa}-s \wedge j^{sa}+s-j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\cdots,\Bbbk_1,j_{sa}^{ik},\cdots,\Bbbk_2,j_{sa},\cdots,\Bbbk_3,j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge \boldsymbol{s}=s+\Bbbk \wedge$

$\Bbbk_z: z=3 \wedge \Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\ \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\ \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=s}^{\boldsymbol{l_{sa}}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-[illegible])!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left([illegible]-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{([illegible]\boldsymbol{l_i})!}{(D+[illegible]-\boldsymbol{n}-\boldsymbol{l_i})!\cdot([illegible]-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j[illegible]\leq j^{sa}+j_{sa}^{i[illegible]}[illegible]j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}[illegible]j_i\leq[illegible]$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=[illegible]\wedge\boldsymbol{l_i}+j_{sa}-s[illegible]\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-[illegible]\wedge j_{sa}^{s}<j_{sa}^{i[illegible]}[illegible]1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},[illegible]\mathbb{k}_3,j_{sa}^{i}\right\}\wedge$

$s\geq 7\wedge\boldsymbol{s}=s+[illegible]$

$\mathbb{k}[illegible]z=3\wedge[illegible]=\mathbb{k}_1+[illegible]+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i}=\sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\ \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\ \sum_{j_i=s}^{\boldsymbol{l_{ik}}+s-j_{sa}^{ik}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{([illegible] - j_{sa}^{ik})!}{([illegible] - j_{ik})! \cdot ([illegible] - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_s < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_i}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l}_{[illegible]}-j^{ik}_{sa})!}{(\boldsymbol{l_{ik}}-[illegible])!\cdot([illegible]_{k}-j^{ik}_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \land$

$1 \leq j_s \leq j_{ik} - j^{ik}_{sa} + 1 \land j_s + j^{ik}_{sa} - 1 \leq j_{ik} \leq j^{sa} + j^{ik}_{sa} - j_{sa} \land$

$j_{ik} + j_{sa} - j^{ik}_{sa} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j^{ik}_{sa} + 1 > \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j^{ik}_{sa} - j_{sa} = \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \land$

$D \geq \boldsymbol{n} < n \land I = \mathbb{k} > 0 \land$

$j_{sa} < j^{i}_{sa} - 1 \land j^{ik}_{sa} < j_{sa} - 1 \land j^{s}_{sa} < j^{ik}_{sa} - 1 \land$

$\boldsymbol{s}: \{j^{s}_{sa}, \cdots, \mathbb{k}_1, j^{ik}_{sa}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j^{i}_{sa}\} \land$

$s \geq 7 \land \boldsymbol{s} = s + \mathbb{k} \land$

$\mathbb{k}_z: z = 3 \land \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j^{ik}_{sa}-j_{sa}}\ \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})}\ \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\colon\{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_2 \geq 0 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{ik}}+j_{sa}-j_{sa}^{ik})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge I = 1 \wedge \boldsymbol{l_i} \leq D+s-\boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}-1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{l_i}+j_{sa}-s \wedge j^{sa}+s-j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 \leq \boldsymbol{l_i} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s+\Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1+\Bbbk_2+\Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}
$$

$$
\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_i}+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot
$$

$$
\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}
$$

$$
\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot
$$

$$
\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{n} - 1 \leq j_i \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=\text{[illegible]})}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}\text{[illegible]}} \sum_{(j^{sa}=\text{[illegible]})}^{\text{[illegible]}_{a})} \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{\text{[illegible]}=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\text{[illegible]}+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1\text{[illegible]})}$$

$$\sum_{\text{[illegible]}=\boldsymbol{n}+\mathbb{k}_3-\text{[illegible]}1}^{n_{ik}\text{[illegible]}-j^{sa}-\mathbb{k}_2\text{[illegible]}} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{\text{[illegible]}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i\text{[illegible]}n_{ik} - \mathbb{k}_1 - 1)!}{\text{[illegible]}_{k} - 2)! \cdot (\text{[illegible]} - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(\text{[illegible]}_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - \text{[illegible]} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i\text{[illegible]}^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z : z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa},j_i \text{[illegible]}} = \sum_{k\text{[illegible]}} \sum_{(\text{[illegible]}=1)}^{(\;)}
$$

$$
\sum_{j_{ik}=j\text{[illegible]}j_{sa}^{ik}-j_{sa}} \sum^{(\text{[illegible]}+j_{sa}-j_{sa}^{ik})}_{\text{[illegible]}} \sum_{j_i=s}^{\boldsymbol{l_i}}
$$

$$
\sum_{n_i\text{[illegible]}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_i\text{[illegible]}j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot
$$

$$
\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot
$$

$$
\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z : z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$f_Z S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$\ldots j_s \ ,j_{ik},j^{sa},j_i = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s\geq\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}$ [illegible] $\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},$ [illegible] $\}\wedge$

$s\geq 7\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_i}+j_{sa}-s)}\sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \Bbbk_2, j_{sa}^{ik}, \cdots, \Bbbk_1, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\right\}$

$s \geq 7 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{(\ )} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - [illegible])! \cdot ([illegible] - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - 1)! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 \geq \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} \geq \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge \boldsymbol{S} = s + \Bbbk \wedge$

$f_z: z = 2 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(\boldsymbol{l_{sa}}+j_{ik}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1}^{(\ )} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=s}^{\boldsymbol{l_{sa}}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_i} - s + 1 > \boldsymbol{l_s} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n})\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\colon \left\{ j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z\colon z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$\text{[illegible]}S_{j_s\ ,j_{ik},j^{\text{[illegible]}}} = \sum_{k=1}^{\text{[illegible]}} \sum_{(j_s=\text{[illegible]}}^{(\text{[illegible]}} \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}\text{[illegible]}} \sum_{(j^{sa}=j_{sa})}^{\text{[illegible]}_{sa})} \sum_{j_i=s}^{\boldsymbol{l_i}}$$

$$\sum_{n_i=\text{[illegible]}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{\text{[illegible]}-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{\text{[illegible]}j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}}\wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j_{sa}\}\wedge$

$s\geq 7\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(\boldsymbol{l_i} + j_{sa} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\colon \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z\colon z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\Bbbk>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\Bbbk_1,j_{sa}^{ik},\cdots,\Bbbk_2,j_{sa},\cdots,\Bbbk_3,j_{sa}^{i}\right\}\wedge$

$s\geq 7\wedge\boldsymbol{s}=s+\Bbbk\wedge$

$\Bbbk_z:z=3\wedge\Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3\Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\colon \left\{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z\colon z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\;)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s}=1 \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq j_i+j_{sa}-s \wedge j^{sa}+s-j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}} \wedge$

$D+s-\boldsymbol{n} < \boldsymbol{l_i} \leq D-\boldsymbol{l_s}+s-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I=\mathbb{k} > 0 \wedge$

$j_{sa} < j_i-1 \wedge j_{sa}^{ik} < j_{ik}-1 \wedge j_{sa} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j_{sa}^{i}\} \wedge$

$s \geq 3 \wedge s=s+\mathbb{k} \wedge$

$\mathbb{k}_z: z=3 \wedge \mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{n}+j_{sa}-s)}\sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} \geq \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + j_{sa} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_{ik}} \leq D - \boldsymbol{n} + 1 \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \land$

$\boldsymbol{l_s} + s < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \land$

$D \geq \boldsymbol{n} < n \land I = \mathbb{k} > 0 \land$

$j_{sa} < j_{sa}^{i} - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} < j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}\colon \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \land$

$s \geq 7 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1}^{(n_i-j_{ik}-\Bbbk_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\Bbbk_2)} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D > \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq \boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i} \right\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1}^{(\;)} \sum_{(j_s=1)} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\;)} \sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-j_{sa}}^{\boldsymbol{n}} \sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} \sum_{n_{sa}=\boldsymbol{n}+s-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)} $$

$$ \frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot $$

$$ \frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot $$

$$ \frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot $$

$$ \frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot $$

$$ \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} $$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa}, [illegible]} = \sum [illegible] \sum_{[illegible]=1)}^{(\ )}$$

$$\sum_{j_{ik}=[illegible]a+j_{sa}^{ik}-j_{sa}} \sum_{(j^{s[illegible]}+j_{sa}-s[illegible])}^{(\ )} \sum_{[illegible]-D-j_{sa}^{ik}}^{\boldsymbol{n}}$$

$$\sum_{n_{[illegible]}+\mathbb{k}}^{\boldsymbol{n}} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{i[illegible]}{}^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{[illegible](j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{[illegible]{}^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$f_S(j_{ik}, j^{sa}, j_i) = \sum_{[illegible]=1} \sum_{(j_s=1)}^{([illegible])}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+[illegible]-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1}^{[illegible]} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{[illegible]=j^{sa}+j_{sa}[illegible]}^{[illegible]} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{([illegible]+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \land \boldsymbol{l_s} = 1 \land \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \land$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \land j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \land$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \land$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \land$

$D \geq \boldsymbol{n} < n \land I = \Bbbk > 0 \land$

$j_{sa} < j_{sa}^{i} - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} < j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\right\} \land$

$s \geq 7 \land \boldsymbol{s} = s + \Bbbk \land$

$\Bbbk_z: z = 3 \land \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ \ )}$$

$$\sum_{j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}^{ik}-D-s}^{\boldsymbol{n}+j_{sa}^{ik}-s} \sum_{\left(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik}\right)}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\text{[illegible]})!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\text{[illegible]}-j_{sa}^{ik}\text{[illegible]})!}{(\text{[illegible]}-j_{ik})!\cdot(\text{[illegible]}j_{sa}^{ik})!}\cdot$$

$$\frac{(\text{[illegible]}-\boldsymbol{l_i})!}{(\text{[illegible]}-\boldsymbol{n}-\text{[illegible]})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_s\text{[illegible]}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}\text{[illegible]}-j_{sa}\leq j_i\leq\text{[illegible]}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{s}^{ik}\text{[illegible]}j_{sa}-\text{[illegible]}\wedge\boldsymbol{l_i}+\text{[illegible]}-s=\text{[illegible]}\boldsymbol{a}\wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+\text{[illegible]}-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\Bbbk>0\wedge$

$j_{sa}<\text{[illegible]}a-1\wedge j_{sa}^{ik}\text{[illegible]}-1\wedge j_{sa}^{s}<\text{[illegible]}\wedge$

$\boldsymbol{s}\colon\{j_{sa}^{s},\cdots,\Bbbk_1,j_{s}\text{[illegible]}\cdots,\Bbbk_2,j_{s}\text{[illegible]}\cdots,\Bbbk_3\text{[illegible]}\}\wedge$

$s\geq\text{[illegible]}\boldsymbol{s}=s+\Bbbk\wedge$

$\Bbbk_z\colon z=3\text{[illegible]}\Bbbk=\Bbbk_1+\Bbbk\text{[illegible]}+\Bbbk_3\Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i}=\sum_{k=1}^{(\ )}\sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}+j_{sa}^{ik}-D-j_{sa}}^{\boldsymbol{n}+j_{sa}^{ik}-s}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}\ \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} \leq \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_i - 1 \wedge j_{sa}^{ik} < j_i - 1 \wedge j_{sa} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^s, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^i\} \wedge$

$s \geq 3 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{n}+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{s} + 1 \wedge j_s + j_{sa}^{ik} - j_{sa}^{s} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + j_{sa} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s < S \wedge S = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_{sa}} + s - j_{sa} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ \ )} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}^{(\boldsymbol{l_{ik}}+j_{sa}-j_{sa}^{ik})} \sum_{\boldsymbol{l_i}=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}-j_i+1}^{n} \sum_{n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \land$

$D \geq \boldsymbol{n} < n \land I = \mathbb{k} > 0 \land$

$j_{sa} < j_{sa}^{i} - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} < j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \land$

$s \geq 7 \land \boldsymbol{s} = s + \mathbb{k} \land$

$\mathbb{k}_z: z = 3 \land \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$
{}_{fz}S_{j_{s}, j_{ik}, j^{\text{[illegible]}}, \text{[illegible]}} = \sum_{k\text{[illegible]}} \sum_{\text{[illegible]}=1)}^{(\ )}
\sum_{j_{ik}=\boldsymbol{l_{sa}}+\boldsymbol{n}\text{[illegible]}^{ik}-D-j_{sa}}^{\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}} \sum_{\text{[illegible]}a=j_{ik}+j_{sa}\text{[illegible]}}^{(\ \text{[illegible]})} \sum_{\text{[illegible]}_i+\boldsymbol{n}-D}^{\boldsymbol{n}}
\sum_{n_i\text{[illegible]}+\mathbb{k}}^{\boldsymbol{n}} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_i\text{[illegible]}^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{\text{[illegible]}(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{\text{[illegible]}j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot
$$

$$
\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot
$$

$$
\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \sum_{k=1}^{} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\right\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \sum_{k=1}^{()} \sum_{(j_s=1)}^{()}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{()} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}}\wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\Bbbk>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\Bbbk_1,j_{sa}^{ik},\cdots,\Bbbk_2,j_{sa},\cdots,\Bbbk_3,j_{sa}^{i}\right\}\wedge$

$s\geq 7\wedge\boldsymbol{s}=3+\Bbbk\wedge$

$\Bbbk_z:z=3\wedge\Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3$

$$_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\sum_{k=1}\sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}}\ \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\ \sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq j_i+j_{sa}-s \wedge j^{sa}+s-j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s = \boldsymbol{l_{sa}} \wedge$

$D+\boldsymbol{l_s}-\boldsymbol{n} < \boldsymbol{l_i} \leq D+\boldsymbol{l_s}+s-j_{sa}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge S = s+\mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1} \sum_{(j_s=1)}^{(\ )}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{sa}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}$$

$D \ge \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_{ik}} \le D - \boldsymbol{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \le j_i \le \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_{sa}} - j_{sa} + s < \boldsymbol{l_i} \le D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z : z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \sum_{k=1}^{(\ )} \sum_{(j_s=1)}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=[illegible]^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+[illegible]}^{n} \sum_{[illegible]_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-[illegible]}^{(n_i-j_{ik}-[illegible]+1)}$$

$$\sum_{n_{sa}=[illegible]-j^{sa}+1}^{([illegible]+j_{ik}-j^{sa}-\Bbbk_2)} \sum_{[illegible]+1)}^{([illegible]_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$([illegible] < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_i} - s + 1 > \boldsymbol{l_s} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$f_2(\boldsymbol{l_s}, j_{ik}, j^{sa}, j_i) = \sum_{k=1}^{\text{[illegible]}} \sum_{(j_s=1)}^{(\text{[illegible]})}$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\text{[illegible]}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{ik}} - j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot \left(j_{ik} - j_{sa}^{ik}\right)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot \left(j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa}\right)!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq$ [illegible] $\wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} +$ [illegible] $- s >$ [illegible] $\wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik}$ [illegible] $\wedge$

$\boldsymbol{s}\colon \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa},$ [illegible] $\mathbb{k}_3, j_{sa}$ [illegible] $\wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z\colon z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3$ [illegible]

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s+1}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(\boldsymbol{l_i}+j_{sa}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\colon \left\{ j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z\colon z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$ {}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right. $$

$$ \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} $$

$$ \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} $$

$$ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot $$

$$ \frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot $$

$$ \frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot $$

$$ \frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot $$

$$ \left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) + $$

$$ \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=s+1}^{\boldsymbol{l_i}} \right. $$

$$ \sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} $$

$$ \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)} $$

$$ \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot $$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j_{sa}^{i}\right\}\wedge$

$s\geq 7\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z\wedge z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}\text{[illegible]})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot\text{[illegible]}-s)!}\right)$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\;)}\sum_{j_{ik}\text{[illegible]}}\sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})}\sum_{j_i=\text{[illegible]}}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=\text{[illegible]}k}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2\text{[illegible]}j_{ik}+1)}^{(\text{[illegible]}j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\text{[illegible]}-j^{sa}+1}^{\text{[illegible]}+j_{ik}-j^{s\text{[illegible]}}}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n\text{[illegible]}n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-\text{[illegible]}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\land j^{sa}+s-j_{sa}\leq j_i\leq \boldsymbol{n}\land$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\land \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\land \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\land$

$D\geq \boldsymbol{n}<n\land I=\Bbbk>0\land$

$j_{sa}<j_{sa}^{i}-1\land j_{sa}^{ik}<j_{sa}-1\land j_{sa}^{s}<j_{sa}^{ik}-1\land$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\Bbbk_1,j_{sa}^{ik},\cdots,\Bbbk_2,j_{sa},\cdots,\Bbbk_3,j_{sa}^{i}\right\}\land$

$s\geq 7\land \boldsymbol{s}=s+\Bbbk\land$

$\Bbbk_z:z=3\land \Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\,)}\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=j_{sa})}^{(\,)}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\,)}\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\,)}\sum_{j_i=s+1}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)!\cdot(\mathbf{n}-j_i)!}\cdot$$

$$\frac{(\mathbf{l_{ik}}-j_{sa}^{ik})!}{(\mathbf{l_{ik}}-\mathbf{l_s})!\cdot(\mathbf{l_s}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D-\mathbf{l_i})!}{(D+j_i-\mathbf{n}-\mathbf{l_i})!\cdot(\mathbf{n}-j_i)!}\right)$$

$D \geq \mathbf{n} < n \wedge \mathbf{l_s} = 1 \wedge \mathbf{l_i} \leq D + s - \mathbf{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \mathbf{n} \wedge$

$\mathbf{l_{ik}} - j_{sa}^{ik} + 1 > \mathbf{l_s} \wedge \mathbf{l_{sa}} + j_{sa}^{ik} - j_{sa} = \mathbf{l_{ik}} \wedge \mathbf{l_i} + j_{sa} - s > \mathbf{l_{sa}} \wedge$

$D \geq \mathbf{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\mathbf{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge \mathbf{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-[illegible])!}{(D+s-[illegible]\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}^{[illegible]} \sum_{(j_s=1)}^{[illegible]} \sum_{j_{ik}=j_s+j_{sa}^{ik}-j_{sa}}^{[illegible]} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=s+1}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{[illegible]} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,\dots,j^{sa},j_i} = \left(\sum_{k=1}^{(\ )} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\sum_{j_i=s+1}^{\boldsymbol{l_i}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$\big((D \geq s < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}}) \vee$

$(D \geq s < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_i} - s + 1 > \boldsymbol{l_s} \wedge$

$\boldsymbol{l_i} \leq D + s - \boldsymbol{n})\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$
{}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=s}^{\boldsymbol{l_i}} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{sa})}^{(\boldsymbol{l_{sa}})} \sum_{j_i=s+1}^{\boldsymbol{l_i}} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-\text{[illegible]}-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-\text{[illegible]})!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l}_{\text{[illegible]}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}\text{[illegible]})!\cdot(\text{[illegible]}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l}_{\text{[illegible]}}+j_{sa}^{ik}-\text{[illegible]}-j_{sa})!}{(j_{\text{[illegible]}}+\boldsymbol{l_{sa}}-j^{sa}-\text{[illegible]})!\cdot(j^{sa}\text{[illegible]}j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+\text{[illegible]}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\text{[illegible]}-j_i-\boldsymbol{l}\text{[illegible]})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = \text{[illegible]} \wedge \boldsymbol{l_i} \leq D + s - \text{[illegible]} \wedge$

$1 \text{[illegible]} j_s \leq j_{ik} \text{[illegible]} j_{sa}^{ik} + 1 \wedge \text{[illegible]} + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} \text{[illegible]} j_{sa} - j_{sa}^{ik} \leq j \text{[illegible]} \leq j_i + j_s \text{[illegible]} \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa} \text{[illegible]} 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} \text{[illegible]} j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge \text{[illegible]} = \Bbbk > \text{[illegible]} \wedge$

$j_{sa} \text{[illegible]} j_{sa} \text{[illegible]} 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots \text{[illegible]}, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(\cdots-\boldsymbol{l_i})!}{(D\cdots s-\boldsymbol{n}-\cdots_i)!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{\cdots=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_{sa}})}\sum_{j_i=j^{sa}+s-j_{sa}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\Bbbk>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\cdots,\Bbbk_1,j_{sa}^{ik},\cdots,\Bbbk_2,j_{sa},\cdots,\Bbbk_3,j_{sa}^{i}\}\wedge$

$s\geq 7\wedge\boldsymbol{s}=s+\Bbbk\wedge$

$\Bbbk_z:z=3\wedge\Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3\Rightarrow$

$${}_{fz}S_{j_s,\ldots,j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_{sa}})}\sum_{j_i=j^{sa}+s-j_{sa}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i+j_{ik}-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\Bbbk_z : z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{sa}+1)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=j^{sa}+s-j_{sa}} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot
$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D + s - \boldsymbol{n} \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}\sum_{(j_s=1)}^{()}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{()}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)$$

$$\left(\sum_{k=1}^{(\ )}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}+1}^{\boldsymbol{l_{ik}}}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}\sum_{j_i=j^{sa}+s-j_{sa}}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}\ \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+j^{sa}-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+j_i-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\Bbbk_2)}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\land\boldsymbol{l_s}=1\land\boldsymbol{l_i}\leq D+s-\boldsymbol{n}\land$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\land j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\land$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\land j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$
{}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=s}^{\boldsymbol{l_i}} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )} \sum_{j_i=s+1}^{\boldsymbol{l_i}} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\ge\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\le D-\boldsymbol{n}+1\wedge$

$1\le j_s\le j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\le j_{ik}\le j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\le j^{sa}\le j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\le j_i\le\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s>\boldsymbol{l_{sa}}\wedge$

$D+j_i-\boldsymbol{n}<\boldsymbol{l_i}\le D-\boldsymbol{l_s}+s-\boldsymbol{n}-1\wedge$

$D\ge\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j_{sa}^{i}\}\wedge$

$s\ge 7\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z: z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}\ \sum_{j_{ik}=j_{sa}^{ik}}\ \sum_{(j^{sa}=j_{sa})}^{(\ )}\ \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(\boldsymbol{n}-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(\boldsymbol{l_i}+j_{sa}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+s-\boldsymbol{n}<\boldsymbol{l_i}\leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j_{sa}\}\wedge$

$s\geq 7\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq j_i+j_{sa}-s \wedge j^{sa}+s-j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s > \boldsymbol{l_{sa}} \wedge$

$D \geq \boldsymbol{n} < \boldsymbol{l_i} \leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}\colon \left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j_{sa}^{i}\right\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z : z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=\boldsymbol{s}} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot
$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa}\right)!}{\left(\boldsymbol{l_{sa}} + j_{sa}^{ik} - j^{sa} - \boldsymbol{l_{ik}}\right)! \cdot (j^{sa} - j_{sa})!} \cdot$$

$$\frac{(\boldsymbol{l_i} + j_{sa} - \boldsymbol{l_{sa}} - s)!}{(j^{sa} + \boldsymbol{l_i} - j_i - \boldsymbol{l_{sa}})! \cdot (j_i + j_{sa} - j^{sa} - s)!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=j_{ik}+j_{sa}-s)}\sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+j^{sa}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+j_i-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i} \right\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=} \sum_{(j^{sa}=j_{sa})} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_s}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq j_i+j_{sa}-s \wedge j^{sa}+s-j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 \geq \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} \geq \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s = \boldsymbol{l_{sa}} \wedge$

$D+j_i-\boldsymbol{n} < \boldsymbol{l_i} \leq D+\boldsymbol{l_s}+s-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i}-1 \wedge j_{sa}^{ik} < j_{sa}-1 \wedge j_{sa}^{s} < j_{sa}^{ik}-1 \wedge$

$\boldsymbol{s}\colon \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s+\mathbb{k} \wedge$

$\mathbb{k}_z\colon z = 3 \wedge \mathbb{k} = \mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}\ \sum_{j_{ik}=j_{sa}^{ik}}\ \sum_{(j^{sa}=j_{sa})}^{(\ )}\ \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(\ldots-\boldsymbol{l_i})!}{(D\ldots s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\ \sum_{(\ldots=1)}^{(\ldots)}\ \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}}\ \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\ \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\frac{(\boldsymbol{l_{sa}} + j_{sa}^{ik} - \boldsymbol{l_{ik}} - j_{sa})!}{(j_{ik} + \boldsymbol{l_{sa}} - j^{sa} - \boldsymbol{l_{ik}})! \cdot (j^{sa} + j_{sa}^{ik} - j_{ik} - j_{sa})!} \cdot$$

$$\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\Bigg)$$

$\big((D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1) \vee$

$(D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_i} - s + 1 > \boldsymbol{l_s} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1)\big) \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge n = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \Bigg(\sum_{k=1} \sum_{(j_s=1)}^{()} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{()} \sum_{j_i=s}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-[illegible])!}{(D[illegible]s-[illegible]\boldsymbol{l}[illegible])!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k[illegible]}^{[illegible]} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}[illegible]}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{[illegible]} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},\dots,j_i} = \left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)}\sum_{j_i=j^{sa}+s-j_{sa}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_i} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + \boldsymbol{l_s} - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \left\{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\right\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z : z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$ {}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik}-2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(j_{sa} - j^{ik}_{sa})!}{(j_{sa} - j_{ik})! \cdot (j_{ik} - j^{ik}_{sa})!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j^{ik}_{sa} + 1 \wedge j_s + j^{ik}_{sa} - 1 \leq j_{ik} \leq j^{sa} + j^{ik}_{sa} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j^{ik}_{sa} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j^{ik}_{sa} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j^{ik}_{sa} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa} - 1 \wedge j^{ik}_{sa} < j_{sa} - 1 \wedge j^{s}_{sa} < j^{ik}_{sa} - 1 \wedge$

$\boldsymbol{s}: \{j^{s}_{sa}, \cdots, \Bbbk_1, j^{ik}_{sa}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j^{sa}\} \wedge$

$s \geq 3 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s, j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{()} \sum_{j_{ik}=j^{ik}_{sa}} \sum_{(j^{sa}=j_{sa})}^{()} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - [illegible])!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left.\frac{([illegible])!}{(D + s [illegible] \boldsymbol{n} - \boldsymbol{l_i})! \cdot ([illegible] s)!}\right) +$$

$$\left(\sum [illegible] \sum_{(j_s=1)}^{([illegible])}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{n}+j_{sa}^{ik}[illegible]} \sum_{(j^{sa}[illegible]_{ik}+j_{sa}-j_{sa}^{ik})}^{[illegible]} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{[illegible]} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\left.\frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$D + s - \boldsymbol{n} < \boldsymbol{l_i} \leq D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=\text{[illegible]}}^{\text{[illegible]}} \sum_{(j_s=1)}^{\text{[illegible]}} \sum_{j_{ik}=\text{[illegible]}}^{\text{[illegible]}} \sum_{(j^{sa}=j_{sa})}^{\text{[illegible]}} \sum_{j_i=s}^{\text{[illegible]}} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{\text{[illegible]}} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}\sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+[illegible])}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \ge \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge [illegible] \le D - \boldsymbol{n} + 1 \wedge$

$1 \le j_s \le j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \le j_{ik} \le j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \le j^{sa} \le j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \le j_i \le \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + [illegible] > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$[illegible] < \boldsymbol{l_i} \le D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \ge \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}\colon \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z : z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$
\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_i}+\boldsymbol{n}+j_{sa}-D-s)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}
$$

$$
\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}
$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\text{[illegible]})!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\,\text{[illegible]}\,(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\text{[illegible]}-j_{sa}^{ik}\text{[illegible]})!}{(\text{[illegible]}-j_{ik})!\cdot(\text{[illegible]}j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-\text{[illegible]})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\text{[illegible]})!\cdot(j^{sa}+j_{sa}\text{[illegible]}j_{ik}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i\,\text{[illegible]}\,\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\ge\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\le D-\boldsymbol{n}+1\wedge$ [illegible]

$1\le j_s\le j_{ik}-j_{sa}^{ik}+1\wedge j_s+$ [illegible] $j_{ik}\le$ [illegible] $+j_{sa}^{ik}-$ [illegible] $\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\le j^{sa}\le j_i$ [illegible] $_{sa}-s\wedge j^{sa}+$ [illegible] $-j_{sa}\le j_i\le\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-$ [illegible] $=\boldsymbol{l_{ik}}\wedge\boldsymbol{l}$ [illegible] $j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+$ [illegible] $\boldsymbol{n}<\boldsymbol{l_i}\le$ [illegible] $\boldsymbol{l_s}+s-\boldsymbol{n}-$ [illegible]

D [illegible] $\boldsymbol{n}<n\wedge$ [illegible] $\Bbbk>0$ [illegible]

j_{sa} [illegible] $j_{sa}^{i}-1\wedge j_{sa}^{ik}$ [illegible] $_{sa}-1$ [illegible] $<j_{sa}^{ik}-1\wedge$

[illegible] $\{j_{sa}^{s},\cdots$ [illegible] $,j_{sa}^{ik},\cdots,\Bbbk_2$ [illegible] $_{sa},\cdots,\Bbbk_3,j_{sa}^{i}\}\wedge$

$s\ge7$ [illegible] $\boldsymbol{s}=s$

$\Bbbk_z:z=3$ [illegible] $\Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3\Rightarrow$

$${}_{fz}S_{j_s\,,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\ldots)!}{(D-s-\ldots\boldsymbol{l}_i)!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}^{\ldots}\sum_{(j_s=1)}^{(\ldots)}\right.$$

$$\sum_{j_{ik}=\boldsymbol{l}_i+\ldots+j_{sa}^{ik}-D-s}^{\boldsymbol{n}+j_{\ldots}-s}\sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ldots)}\sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1=\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+j_{sa}-\boldsymbol{n}<\boldsymbol{l_{sa}}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j_{sa}^{i}\right\}\wedge$

$s\geq 7\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\;)}\right.$$

$$\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\;)}\sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_i+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{n_s=\boldsymbol{n}-j_i+1}^{n_{sa}+j^{sa}-j_i-\mathbb{k}_3}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-j^{sa}-\boldsymbol{l_{ik}}\right)!\cdot(j^{sa}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq j_i+j_{sa}-s \wedge j^{sa}+s-j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s = \boldsymbol{l_{sa}} \wedge$

$D+j_{sa}-\boldsymbol{n} < \boldsymbol{l_{sa}} \leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$
{}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s} \right.
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$
\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{(n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2)} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}
$$

$$
\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \mathbb{k}_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \mathbb{k}_2)!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \mathbb{k}_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \mathbb{k}_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +
$$

$$
\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \right.
$$

$$
\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}}
$$

$$
\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}
$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-[illegible])!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-[illegible])!\cdot([illegible]-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} - j_{sa}^{ik} + j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} \leq \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq [illegible] + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} [illegible] \wedge$

$D \geq \boldsymbol{n} < n \wedge I - [illegible] > 0 \wedge$

$j_{sa} < j_i - 1 \wedge j_{sa}^{ik} < j^{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq [illegible] = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\ )} \sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\ )!}{(D+s-\ \boldsymbol{L})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=l_{ik}+\boldsymbol{n}-D} \sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )} \sum_{j_i=\boldsymbol{l_{sa}}+\boldsymbol{n}+s-D-j_{sa}}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j^{ik}_{sa})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j^{ik}_{sa})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j^{ik}_{sa}-\boldsymbol{l_{ik}}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot(j^{sa}+j^{ik}_{sa}-j_{ik}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j^{ik}_{sa} + 1 \wedge j_s + j^{ik}_{sa} - 1 \leq j_{ik} \leq j^{sa} + j^{ik}_{sa} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j^{ik}_{sa} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j^{ik}_{sa} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j^{ik}_{sa} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j^i_{sa} - 1 \wedge j^{ik}_{sa} < j_{sa} - 1 \wedge j^s_{sa} < j_s - 1 \wedge$

$\boldsymbol{s}: \{j^s_{sa}, \cdots, \Bbbk_1, j^{ik}_{sa}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j^i_{sa}\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$fzS_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j^{ik}_{sa}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}^{(\,)}\sum_{(j_s=[illegible])}\right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\ \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}[illegible])}^{(\boldsymbol{n}+j_{sa}-s)}\ \sum_{[illegible]j^{sa}[illegible]-j_{sa}}$$

$$\sum_{n_i[illegible]}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+[illegible]+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}[illegible]+\mathbb{k}_3-j^{sa}}^{n_{ik}+j[illegible]-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}[illegible]-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{([illegible]-2)!\cdot([illegible]-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{([illegible]-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$[illegible] > \boldsymbol{n}\ [illegible] \wedge \boldsymbol{l_s}=1\wedge \boldsymbol{l_s}\le D-\boldsymbol{n}+1\wedge$

$1\le j_s\le j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\le j_{ik}\le j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\le j^{sa}\le j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\le j_i\le \boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}>\boldsymbol{l_{ik}}\wedge \boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$$D + j_{sa} - \boldsymbol{n} < \boldsymbol{l_{sa}} \leq D + \boldsymbol{l_s} + j_{sa} - \boldsymbol{n} - 1 \land$$

$$D \geq \boldsymbol{n} < n \land I = \Bbbk > 0 \land$$

$$j_{sa} < j_{sa}^{i} - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} < j_{sa}^{ik} - 1 \land$$

$$\boldsymbol{s}: \left\{ j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i} \right\} \land$$

$$s \geq 7 \land \boldsymbol{s} = s + \Bbbk \land$$

$$\Bbbk_z : z = 3 \land \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$$

$$_{fz}S_{j_s \; , j_{ik}, j^{sa}, j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\;)} \sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j^{sa}=j_{sa})}^{(\;)} \sum_{j_i=s} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + s - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - s)!} \right) +$$

$$\left(\sum_{k=1} \sum_{(j_s=1)}^{(\;)} \sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{n}+j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}} \right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-\boldsymbol{l_s})!\cdot(\boldsymbol{l_s}-j_{sa}^{ik})!}\cdot$$

$$\frac{(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_s}-j_{sa})!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_s})!\cdot(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}\leq\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+j_{sa}-\boldsymbol{n}<\boldsymbol{l_{sa}}\leq D+\boldsymbol{l_s}+j_{sa}-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j_{sa}^{i}\}\wedge$

$s>7\wedge S=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\mathbf{n}-1)!\cdot(\mathbf{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\mathbf{l}_i)!}{(D+s-\mathbf{n}-\mathbf{l}_i)!\cdot(\mathbf{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\ \sum_{(j_s=1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=\mathbf{n}+j_{sa}^{ik}-D-j_{sa}}^{\mathbf{n}+j_s^{ik}-s}\ \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{(\ )}\ \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\mathbf{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\mathbf{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D\geq\boldsymbol{n}<n\wedge\boldsymbol{l_s}=1\wedge\boldsymbol{l_s}\leq D-\boldsymbol{n}+1\wedge$

$1\leq j_s\leq j_{ik}-j_{sa}^{ik}+1\wedge j_s+j_{sa}^{ik}-1\leq j_{ik}\leq j^{sa}+j_{sa}^{ik}-j_{sa}\wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik}\leq j^{sa}\leq j_i+j_{sa}-s\wedge j^{sa}+s-j_{sa}\leq j_i\leq\boldsymbol{n}\wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1>\boldsymbol{l_s}\wedge\boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa}=\boldsymbol{l_{ik}}\wedge\boldsymbol{l_i}+j_{sa}-s=\boldsymbol{l_{sa}}\wedge$

$D+j_{sa}^{ik}-\boldsymbol{n}<\boldsymbol{l_{ik}}\leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\Bbbk>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\Bbbk_1,j_{sa}^{ik},\cdots,\Bbbk_2,j_{sa},\cdots,\Bbbk_3,j_{sa}^{i}\right\}\wedge$

$s\geq 7\wedge\boldsymbol{s}=s+\Bbbk\wedge$

$\Bbbk_z:z=3\wedge\Bbbk=\Bbbk_1+\Bbbk_2+\Bbbk_3\Rightarrow$

$$fz\ldots{}_{j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i-n_{ik}-\Bbbk_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\Bbbk_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\Bbbk_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=\text{[illegible]})}^{(\ )}\text{[illegible]}\right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=j_i+j_{sa}-s)}^{(\ )}\sum_{j_i=\text{[illegible]}+s\text{[illegible]}-j_{sa}^{ik}}$$

$$\sum_{n_i\text{[illegible]}}^{n}\sum_{(n_{ik}=\boldsymbol{n}+\text{[illegible]}+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}\text{[illegible]}+\mathbb{k}_3-j^{sa}\text{[illegible]}}^{n_{ik}+j\text{[illegible]}j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}\text{[illegible]}j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(\text{[illegible]}-2)!\cdot(\text{[illegible]}-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{i\text{[illegible]}}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(\text{[illegible]}j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$\text{[illegible]} > \boldsymbol{n}\text{[illegible]} \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D-\boldsymbol{n}+1 \wedge$

$1 \leq j_s \leq j_{ik}-j_{sa}^{ik}+1 \wedge j_s+j_{sa}^{ik}-1 \leq j_{ik} \leq j^{sa}+j_{sa}^{ik}-j_{sa} \wedge$

$j_{ik}+j_{sa}-j_{sa}^{ik} \leq j^{sa} \leq j_i+j_{sa}-s \wedge j^{sa}+s-j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}}-j_{sa}^{ik}+1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}}+j_{sa}^{ik}-j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i}+j_{sa}-s = \boldsymbol{l_{sa}} \wedge$

$D+j_{sa}^{ik}-\boldsymbol{n}<\boldsymbol{l_{ik}}\leq D+\boldsymbol{l_s}+j_{sa}^{ik}-\boldsymbol{n}-1\wedge$

$D\geq\boldsymbol{n}<n\wedge I=\mathbb{k}>0\wedge$

$j_{sa}<j_{sa}^{i}-1\wedge j_{sa}^{ik}<j_{sa}-1\wedge j_{sa}^{s}<j_{sa}^{ik}-1\wedge$

$\boldsymbol{s}:\left\{j_{sa}^{s},\cdots,\mathbb{k}_1,j_{sa}^{ik},\cdots,\mathbb{k}_2,j_{sa},\cdots,\mathbb{k}_3,j_{sa}^{i}\right\}\wedge$

$s\geq 7\wedge\boldsymbol{s}=s+\mathbb{k}\wedge$

$\mathbb{k}_z:z=3\wedge\mathbb{k}=\mathbb{k}_1+\mathbb{k}_2+\mathbb{k}_3\Rightarrow$

$${}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i}=\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\sum_{j_{ik}=j_{sa}^{ik}}\sum_{(j^{sa}=j_{sa})}^{(\ )}\sum_{j_i=s}\right.$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\sum_{(n_{ik}=\boldsymbol{n}-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}-\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+s-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-s)!}\right)+$$

$$\left(\sum_{k=1}\sum_{(j_s=1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}}\sum_{(j^{sa}=\boldsymbol{l_{ik}}+\boldsymbol{n}+j_{sa}-D-j_{sa}^{ik})}^{(\boldsymbol{n}+j_{sa}-s)}\sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_{ik}}-j_{sa}^{ik})!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot(j_{ik}-j_{sa}^{ik})!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{s} + 1 \wedge j_s + j_{sa}^{ik} - j_{sa}^{s} \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa} - j_{sa}^{ik} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s > \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_i} > D + \boldsymbol{l_{sa}} + s - \boldsymbol{n} - j_{sa} \wedge$

$D \geq \boldsymbol{n} < n \wedge \mathbb{I} = \mathbb{k} > 0 \wedge$

$j_{sa}^{i} < j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 1 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$${}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )}\right.$$

$$\sum_{j_{ik}=j_{sa}^{ik}}\ \sum_{(j^{sa}=j_{sa})}^{(\ )}\ \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}-D}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\mathbb{k}}^{n}\ \sum_{(n_{ik}=\boldsymbol{n}+\mathbb{k}_2+\mathbb{k}_3-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\mathbb{k}_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\mathbb{k}_2}\ \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\mathbb{k}_3)}$$

$$\frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-2)!\cdot(n_i-n_{ik}-j_{ik}-\mathbb{k}_1+1)!}\cdot$$

$$\frac{(n_{ik}-n_{sa}-\mathbb{k}_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot(n_{ik}+j_{ik}-n_{sa}-j^{sa}-\mathbb{k}_2)!}\cdot$$

$$\frac{(n_{sa}-n_s-\mathbb{k}_3-1)!}{(j_i-j^{sa}-1)!\cdot(n_{sa}+j^{sa}-n_s-j_i-\mathbb{k}_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(\boldsymbol{l_i}+j_{sa}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$D \geq \boldsymbol{n} < n \wedge I = 1 \wedge \boldsymbol{l_i} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq \boldsymbol{l_i} + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_i} - s + 1 > 0 \wedge$

$\boldsymbol{l_i} > D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa}^{i} > j_{sa} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \mathbb{k}_1, j_{sa}^{ik}, \cdots, \mathbb{k}_2, j_{sa}, \cdots, \mathbb{k}_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 3 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 + \mathbb{k}_3 \Rightarrow$

$$ {}_{fz}S_{j_s\ ,j_{ik},j^{sa},j_i} = \left(\sum_{k=1} \sum_{(j_s=1)}^{(\ )} \right.$$

$$\sum_{j_{ik}=\boldsymbol{l_{ik}}+\boldsymbol{n}-D}^{\boldsymbol{l_{ik}}} \sum_{(j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\boldsymbol{l_{sa}})} \sum_{j_i=\boldsymbol{l_i}+\boldsymbol{n}\text{[illegible]}}^{\boldsymbol{n}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2\text{[illegible]}-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-\text{[illegible]}1}^{n_{ik}+j_{ik}-j^{sa}\text{[illegible]}} \sum_{(n_s=\boldsymbol{n}-j_i+\text{[illegible]}}^{(n_{sa}+j^{s\text{[illegible]}}j_i-\Bbbk_3)}$$

$$\frac{\text{[illegible]}n_{ik}-\Bbbk_1\text{[illegible]}1)!}{(j_{ik}-2)!\cdot(n_i-\text{[illegible]}j_{ik}\text{[illegible]}\Bbbk_1+1)!}\cdot$$

$$\frac{(\text{[illegible]}-n_{sa}\text{[illegible]}\Bbbk_2-1)!}{(j^{sa}-j_{ik}-1)!\cdot\text{[illegible]}+j_{ik}\text{[illegible]}n_{sa}-j^{sa}-\Bbbk_2)!}\cdot$$

$$\frac{(n_{sa}-\text{[illegible]}-\Bbbk_3-1)!}{(j_i-\text{[illegible]}-1)!\cdot(n\text{[illegible]}+j^{sa}-n_s-j_i-\Bbbk_3)!}\cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-\boldsymbol{n}-1)!\cdot(\boldsymbol{n}-j_i)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{ik}}-j_{sa}^{ik}\right)!}{(\boldsymbol{l_{ik}}-j_{ik})!\cdot\left(j_{ik}-j_{sa}^{ik}\right)!}\cdot$$

$$\frac{\left(\boldsymbol{l_{sa}}+j_{sa}^{ik}-\boldsymbol{l_{ik}}-j_{sa}\right)!}{(j_{ik}+\boldsymbol{l_{sa}}-j^{sa}-\boldsymbol{l_{ik}})!\cdot\left(j^{sa}+j_{sa}^{ik}-j_{ik}-j_{sa}\right)!}\cdot$$

$$\frac{(\boldsymbol{l_i}+j_{sa}-\boldsymbol{l_{sa}}-s)!}{(j^{sa}+\boldsymbol{l_i}-j_i-\boldsymbol{l_{sa}})!\cdot(j_i+j_{sa}-j^{sa}-s)!}\cdot$$

$$\left.\frac{(D-\boldsymbol{l_i})!}{(D+j_i-\boldsymbol{n}-\boldsymbol{l_i})!\cdot(\boldsymbol{n}-j_i)!}\right)$$

$\text{[illegible]} > \boldsymbol{n}\text{[illegible]} \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \wedge j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \wedge$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 > \boldsymbol{l_s} \wedge \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} = \boldsymbol{l_{ik}} \wedge \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \wedge$

$\boldsymbol{l_{ik}} > D + \boldsymbol{l_s} + j_{sa}^{ik} - \boldsymbol{n} - 1 \wedge$

$D \geq \boldsymbol{n} < n \wedge I = \Bbbk > 0 \wedge$

$j_{sa} < j_{sa}^{i} - 1 \wedge j_{sa}^{ik} < j_{sa} - 1 \wedge j_{sa}^{s} < j_{sa}^{ik} - 1 \wedge$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \wedge$

$s \geq 7 \wedge \boldsymbol{s} = s + \Bbbk \wedge$

$\Bbbk_z: z = 3 \wedge \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$
{}_{fz}S_{j_s,j_{ik},j^{sa},j_i} = \left(\sum_{k=1}^{()} \sum_{(\ldots=1)}^{()} \sum_{j_{ik}=j_s+\boldsymbol{n}-D}^{\boldsymbol{n}+j_{sa}^{ik}-s} \sum_{(j^{sa}=j_{ik}+j_{sa}-j_{sa}^{ik})}^{()} \sum_{j_i=j^{sa}+s-j_{sa}} \sum_{n_i=\boldsymbol{n}+\Bbbk}^{n} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)} \sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)} \right.
$$

$$
\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot
$$

$$
\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot
$$

$$
\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot
$$

$$
\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot
$$

$$
\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot
$$

$$
\left. \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} \right)
$$

$D \geq \boldsymbol{n} < n \wedge \boldsymbol{l_s} = 1 \wedge \boldsymbol{l_s} \leq D - \boldsymbol{n} + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j^{sa} + j_{sa}^{ik} - j_{sa} \wedge$

$j_{ik} + j_{sa} - j_{sa}^{ik} \leq j^{sa} \leq j_i + j_{sa} - s \land j^{sa} + s - j_{sa} \leq j_i \leq \boldsymbol{n} \land$

$\boldsymbol{l_{ik}} - j_{sa}^{ik} + 1 = \boldsymbol{l_s} \land \boldsymbol{l_{sa}} + j_{sa}^{ik} - j_{sa} > \boldsymbol{l_{ik}} \land \boldsymbol{l_i} + j_{sa} - s = \boldsymbol{l_{sa}} \land$

$\boldsymbol{l_i} > D + \boldsymbol{l_s} + s - \boldsymbol{n} - 1 \land$

$D \geq \boldsymbol{n} < n \land I = \Bbbk > 0 \land$

$j_{sa} < j_{sa}^{i} - 1 \land j_{sa}^{ik} < j_{sa} - 1 \land j_{sa}^{s} < j_{sa}^{ik} - 1 \land$

$\boldsymbol{s}: \{j_{sa}^{s}, \cdots, \Bbbk_1, j_{sa}^{ik}, \cdots, \Bbbk_2, j_{sa}, \cdots, \Bbbk_3, j_{sa}^{i}\} \land$

$s \geq 7 \land \boldsymbol{s} = s + \Bbbk \land$

$\Bbbk_z: z = 3 \land \Bbbk = \Bbbk_1 + \Bbbk_2 + \Bbbk_3 \Rightarrow$

$$\text{[illegible]}\; j^{sa}, j_i \;\text{[illegible]} \left(\sum_{\text{[illegible]}=1} \sum_{(j_s=1)}^{(\text{[illegible]}} \right.$$

$$\sum_{j_{ik}=j^{sa}+j_{sa}^{ik}-j_{sa}} \sum_{j^{sa}=\boldsymbol{l_{sa}}+\boldsymbol{n}-D)}^{(\text{[illegible]}j_{sa}-s)} \sum_{j_i=j^{sa}+s-j_{sa}}$$

$$\sum_{n_i=\boldsymbol{n}+\Bbbk} \sum_{(n_{ik}=\boldsymbol{n}+\Bbbk_2+\Bbbk_3-j_{ik}+1)}^{(n_i-j_{ik}-\Bbbk_1+1)}$$

$$\sum_{n_{sa}=\boldsymbol{n}+\Bbbk_3-j^{sa}+1}^{n_{ik}+j_{ik}-j^{sa}-\Bbbk_2} \sum_{(n_s=\boldsymbol{n}-j_i+1)}^{(n_{sa}+j^{sa}-j_i-\Bbbk_3)}$$

$$\frac{(n_i - n_{ik} - \Bbbk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \Bbbk_1 + 1)!} \cdot$$

$$\frac{(n_{ik} - n_{sa} - \Bbbk_2 - 1)!}{(j^{sa} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_{sa} - j^{sa} - \Bbbk_2)!} \cdot$$

$$\frac{(n_{sa} - n_s - \Bbbk_3 - 1)!}{(j_i - j^{sa} - 1)! \cdot (n_{sa} + j^{sa} - n_s - j_i - \Bbbk_3)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \boldsymbol{n} - 1)! \cdot (\boldsymbol{n} - j_i)!} \cdot$$

$$\frac{(\boldsymbol{l_{ik}} - j_{sa}^{ik})!}{(\boldsymbol{l_{ik}} - j_{ik})! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot$$

$$\left. \frac{(D - \boldsymbol{l_i})!}{(D + j_i - \boldsymbol{n} - \boldsymbol{l_i})! \cdot (\boldsymbol{n} - j_i)!} \right)$$

DİZİN

B

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.1.1.1.1/3-4

ilk düzgün simetrik olasılık, 2.3.2.2.1.1.1.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.1.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.1.1.2.1/3-4

ilk düzgün simetrik olasılık, 2.3.2.2.1.1.2.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.1.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.1.1.3.1/3-4

ilk düzgün simetrik olasılık, 2.3.2.2.1.1.3.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.1.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bir bağımsız durumlu simetrinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.1.1.1.1/153-154

ilk düzgün simetrik olasılık, 2.3.2.2.1.1.1.1/162-163

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.1.1.1/210

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bir bağımsız durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.1.1.2.1/153-154

ilk düzgün simetrik olasılık, 2.3.2.2.1.1.2.1/162-163

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.1.2.1/210

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bir bağımsız durumlu bağımlı simetrinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.1.1.3.1/153-154

ilk düzgün simetrik olasılık, 2.3.2.2.1.1.3.1/162-163

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.1.3.1/210

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.1.4.1.1/3-4

ilk düzgün simetrik olasılık, 2.3.2.2.1.4.1.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.4.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.1.4.2.1/3-4

ilk düzgün simetrik olasılık, 2.3.2.2.1.4.2.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.4.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.1.4.3.1/3-4

ilk düzgün simetrik olasılık, 2.3.2.2.1.4.3.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.4.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bağımsız durumlu

simetrinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.1.1.1.1/156-157

ilk düzgün simetrik olasılık, 2.3.2.2.1.1.1.1/165

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.1.1.1/215

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bağımsız durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.1.1.2.1/156-157

ilk düzgün simetrik olasılık, 2.3.2.2.1.1.2.1/165

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.1.2.1/215

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bağımsız durumlu bağımlı simetrinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.1.1.3.1/156-157

ilk ilk düzgün simetrik olasılık, 2.3.2.2.1.1.3.1/165

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.1.3.1/215

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.1.6.1.1/3-4

ilk düzgün simetrik olasılık, 2.3.2.2.1.6.1.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.6.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.1.6.2.1/3-4

ilk düzgün simetrik olasılık, 2.3.2.2.1.6.2.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.6.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrinin son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.1.6.3.1/3-4

ilk düzgün simetrik olasılık, 2.3.2.2.1.6.3.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.6.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.1.1.1.1/77

ilk düzgün simetrik olasılık, 2.3.2.2.1.1.1.1/61

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.1.1.1/106

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.1.1.2.1/77

ilk düzgün simetrik olasılık, 2.3.2.2.1.1.2.1/61

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.1.2.1/106

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.1.1.3.1/77

ilk ilk düzgün simetrik olasılık, 2.3.2.2.1.1.3.1/61

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.1.1.3.1/106

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.2.1.1.1/4

ilk düzgün simetrik olasılık, 2.3.2.2.2.1.1.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.2.1.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk ve son durumunun bulunabileceği olaylara göre

- ilk simetrik olasılık, 2.3.2.1.2.1.2.1/4
- ilk düzgün simetrik olasılık, 2.3.2.2.2.1.2.1/3-4
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.2.1.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk ve son durumunun bulunabileceği olaylara göre
- ilk simetrik olasılık, 2.3.2.1.2.1.3.1/4
- ilk düzgün simetrik olasılık, 2.3.2.2.2.1.3.1/3-4
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.2.1.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk ve son durumunun bulunabileceği olaylara göre
- ilk simetrik olasılık, 2.3.2.1.2.2.1.1/5
- ilk düzgün simetrik olasılık, 2.3.2.2.2.2.1.1/3-4
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.2.2.1.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk ve son durumunun bulunabileceği olaylara göre
- ilk simetrik olasılık, 2.3.2.1.2.2.2.1/5
- ilk düzgün simetrik olasılık, 2.3.2.2.2.2.2.1/3-4
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.2.2.2.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk ve son durumunun bulunabileceği olaylara göre
- ilk simetrik olasılık, 2.3.2.1.2.2.3.1/4
- ilk düzgün simetrik olasılık, 2.3.2.2.2.2.3.1/3-4
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.2.2.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrinin ilk ve son durumunun bulunabileceği olaylara göre
- ilk simetrik olasılık, 2.3.2.1.2.4.1.1/4
- ilk düzgün simetrik olasılık, 2.3.2.2.2.4.1.1/3-4
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.2.4.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrinin ilk ve son durumunun bulunabileceği olaylara göre
- ilk simetrik olasılık, 2.3.2.1.2.4.2.1/4
- ilk düzgün simetrik olasılık, 2.3.2.2.2.4.2.1/3-4
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.2.4.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrinin ilk ve son durumunun bulunabileceği olaylara göre
- ilk simetrik olasılık, 2.3.2.1.2.4.3.1/4
- ilk düzgün simetrik olasılık, 2.3.2.2.2.4.3.1/3-4
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.2.4.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrinin ilk ve son durumunun bulunabileceği olaylara göre
- ilk simetrik olasılık, 2.3.2.1.2.6.1.1/4
- ilk düzgün simetrik olasılık, 2.3.2.2.2.6.1.1/3-4
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.2.6.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrinin ilk ve son durumunun bulunabileceği olaylara göre
- ilk simetrik olasılık, 2.3.2.1.2.6.2.1/4
- ilk düzgün simetrik olasılık, 2.3.2.2.2.6.2.1/3-4
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.2.6.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrinin ilk ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.2.6.3.1/4

ilk düzgün simetrik olasılık, 2.3.2.2.2.6.3.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.2.6.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu simetrinin ilk ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.2.7.1.1/5

ilk düzgün simetrik olasılık, 2.3.2.2.2.7.1.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.2.7.1.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrinin ilk ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.2.7.2.1/5

ilk düzgün simetrik olasılık, 2.3.2.2.2.7.2.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.2.7.2.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrinin ilk ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.2.7.3.1/4

ilk düzgün simetrik olasılık, 2.3.2.2.2.7.3.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.2.7.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.3.1.1.1/4

ilk düzgün simetrik olasılık, 2.3.2.2.3.2.1.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.3.1.1.1/4-5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.3.1.2.1/4

ilk düzgün simetrik olasılık, 2.3.2.2.3.2.2.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.3.1.2.1/4-5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.3.1.3.1/4

ilk düzgün simetrik olasılık, 2.3.2.2.3.2.3.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.3.1.3.1/4-5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.3.2.1.1/5

ilk düzgün simetrik olasılık, 2.3.2.2.3.2.1.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.3.2.1.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.3.2.2.1/5

ilk düzgün simetrik olasılık, 2.3.2.2.3.2.2.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.3.2.2.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk ve herhangi bir durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.3.2.3.1/4

ilk düzgün simetrik olasılık, 2.3.2.2.3.2.3.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.3.2.3.1/4-5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin herhangi iki durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.4.1.1.1/4
ilk düzgün simetrik olasılık, 2.3.2.2.4.1.1.1/3-4
ilk düzgün olmayan simetrik olasılık, 2.3.2.3.4.1.1.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin herhangi iki durumuna bağlı
ilk simetrik olasılık, 2.3.2.1.4.1.2.1/4
ilk düzgün simetrik olasılık, 2.3.2.2.4.1.2.1/3-4
ilk düzgün olmayan simetrik olasılık, 2.3.2.3.4.1.2.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin herhangi iki durumuna bağlı
ilk simetrik olasılık, 2.3.2.1.4.1.3.1/4
ilk düzgün simetrik olasılık, 2.3.2.2.4.1.3.1/3-4
ilk düzgün olmayan simetrik olasılık, 2.3.2.3.4.1.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk durumunun bulunabileceği olaylara göre
ilk simetrik olasılık, 2.3.2.1.4.1.1.1/701-702

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk durumunun bulunabileceği olaylara göre
ilk simetrik olasılık, 2.3.2.1.4.1.2.1/701-702

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk durumunun bulunabileceği olaylara göre
ilk simetrik olasılık, 2.3.2.1.4.1.3.1/701-702

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
ilk simetrik olasılık, 2.3.2.1.5.1.1.1/5
ilk düzgün simetrik olasılık, 2.3.2.2.5.1.1.1/3-4
ilk düzgün olmayan simetrik olasılık, 2.3.2.3.5.1.1.1/6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
ilk simetrik olasılık, 2.3.2.1.5.1.2.1/5
ilk düzgün simetrik olasılık, 2.3.2.2.5.1.2.1/3-4
ilk düzgün olmayan simetrik olasılık, 2.3.2.3.5.1.2.1/6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
ilk simetrik olasılık, 2.3.2.1.5.1.3.1/5
ilk düzgün simetrik olasılık, 2.3.2.2.5.1.3.1/3-4
ilk düzgün olmayan simetrik olasılık, 2.3.2.3.5.1.3.1/6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
ilk simetrik olasılık, 2.3.2.1.5.2.1.1/6-7
ilk düzgün simetrik olasılık, 2.3.2.2.5.2.1.1/3-4
ilk düzgün olmayan simetrik olasılık, 2.3.2.3.5.2.1.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
ilk simetrik olasılık, 2.3.2.1.5.2.2.1/6-7
ilk düzgün simetrik olasılık, 2.3.2.2.5.2.2.1/3-4
ilk düzgün olmayan simetrik olasılık, 2.3.2.3.5.2.2.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre
ilk simetrik olasılık, 2.3.2.1.5.2.3.1/5
ilk düzgün simetrik olasılık, 2.3.2.2.5.2.3.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.5.2.3.1/6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

ilk simetrik olasılık, 2.3.2.1.8.1.1.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.8.1.1.1/5

dizilimsiz bağımlı durumlu bağımsız simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

ilk simetrik olasılık, 2.3.2.1.8.1.2.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.8.1.2.1/5

dizilimsiz bağımlı durumlu bağımlı simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

ilk simetrik olasılık, 2.3.2.1.8.1.3.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.8.1.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

ilk simetrik olasılık, 2.3.2.1.8.2.1.1/6-7

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.8.2.1.1/[illegible]

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

ilk simetrik olasılık, 2.3.2.1.8.2.2.1/6-7

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.8.2.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

ilk simetrik olasılık, 2.3.2.1.8.2.3.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.8.2.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.6.1.1.1/5

ilk düzgün simetrik olasılık, 2.3.2.2.6.1.1.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.6.1.1.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.6.1.2.1/[illegible]

ilk düzgün simetrik olasılık, 2.3.2.2.6.1.2.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.6.1.2.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.6.1.3.1/5

ilk düzgün simetrik olasılık, 2.3.2.2.6.1.3.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.6.1.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.6.2.1.1/6

ilk düzgün simetrik olasılık, 2.3.2.2.6.2.1.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.6.2.1.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.6.2.2.1/6

ilk düzgün simetrik olasılık, 2.3.2.2.6.2.2.1/3-4
ilk düzgün olmayan simetrik olasılık, 2.3.2.3.6.2.2.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
ilk simetrik olasılık, 2.3.2.1.6.2.3.1/4-5
ilk düzgün simetrik olasılık, 2.3.2.2.6.2.3.1/3-4
ilk düzgün olmayan simetrik olasılık, 2.3.2.3.6.2.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
ilk simetrik olasılık, 2.3.2.1.6.4.1.1/5
ilk düzgün simetrik olasılık, 2.3.2.2.6.4.1.1/3-4
ilk düzgün olmayan simetrik olasılık, 2.3.2.3.6.4.1.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
ilk simetrik olasılık, 2.3.2.1.6.4.2.1/5
ilk düzgün simetrik olasılık, 2.3.2.2.6.4.2.1/3-4
ilk düzgün olmayan simetrik olasılık, 2.3.2.3.6.4.2.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
ilk simetrik olasılık, 2.3.2.1.6.4.3.1/5
ilk düzgün simetrik olasılık, 2.3.2.2.6.4.3.1/3-4
ilk düzgün olmayan simetrik olasılık, 2.3.2.3.6.4.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
ilk simetrik olasılık, 2.3.2.1.6.6.1.1/5
ilk düzgün simetrik olasılık, 2.3.2.2.6.6.1.1/3-4
ilk düzgün olmayan simetrik olasılık, 2.3.2.3.6.6.1.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
ilk simetrik olasılık, 2.3.2.1.6.6.2.1/5
ilk düzgün simetrik olasılık, 2.3.2.2.6.6.2.1/3-4
ilk düzgün olmayan simetrik olasılık, 2.3.2.3.6.6.2.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
ilk simetrik olasılık, 2.3.2.1.6.6.3.1/5
ilk düzgün simetrik olasılık, 2.3.2.2.6.6.3.1/3-4
ilk düzgün olmayan simetrik olasılık, 2.3.2.3.6.6.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
ilk simetrik olasılık, 2.3.2.1.6.7.1.1/6
ilk düzgün simetrik olasılık, 2.3.2.2.6.7.1.1/3-4
ilk düzgün olmayan simetrik olasılık, 2.3.2.3.6.7.1.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
ilk simetrik olasılık, 2.3.2.1.6.7.2.1/6
ilk düzgün simetrik olasılık, 2.3.2.2.6.7.2.1/3-4
ilk düzgün olmayan simetrik olasılık, 2.3.2.3.6.7.2.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre
ilk simetrik olasılık, 2.3.2.1.6.7.3.1/4-5

ilk düzgün simetrik olasılık, 2.3.2.2.6.7.3.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.6.7.3.1/5

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

ilk simetrik olasılık, 2.3.2.1.9.1.1.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.9.1.1.1/5

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

ilk simetrik olasılık, 2.3.2.1.9.1.2.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.9.1.2.1/5

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

ilk simetrik olasılık, 2.3.2.1.9.1.3.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.9.1.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı

ilk simetrik olasılık, 2.3.2.1.9.2.1.1/6

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.9.2.1.1/7

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

ilk simetrik olasılık, 2.3.2.1.9.2.2.1/6

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.9.2.2.1/7

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

ilk simetrik olasılık, 2.3.2.1.9.2.3.1/4-5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.9.2.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı

ilk simetrik olasılık, 2.3.2.1.9.4.1.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.9.4.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı

ilk simetrik olasılık, 2.3.2.1.9.4.2.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.9.4.2.1/7

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

ilk simetrik olasılık, 2.3.2.1.9.4.3.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.9.4.3.1/7

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

ilk simetrik olasılık, 2.3.2.1.9.6.1.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.9.6.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı

ilk simetrik olasılık, 2.3.2.1.9.6.2.1/5
ilk düzgün olmayan simetrik olasılık, 2.3.2.3.9.6.2.1/7

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
ilk simetrik olasılık, 2.3.2.1.9.6.3.1/5
ilk düzgün olmayan simetrik olasılık, 2.3.2.3.9.6.3.1/7

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
ilk simetrik olasılık, 2.3.2.1.9.7.1.1/6
ilk düzgün olmayan simetrik olasılık, 2.3.2.3.9.7.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı
ilk simetrik olasılık, 2.3.2.1.9.7.2.1/6
ilk düzgün olmayan simetrik olasılık, 2.3.2.3.9.7.2.1/7

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
ilk simetrik olasılık, 2.3.2.1.9.7.3.1/4
ilk düzgün olmayan simetrik olasılık, 2.3.2.3.9.7.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre
ilk simetrik olasılık, 2.3.2.1.7.1.1.1/5
ilk düzgün simetrik olasılık, 2.3.2.2.7.1.1.1/3-4
ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.1.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre
ilk simetrik olasılık, 2.3.2.1.7.1.2.1/5
ilk düzgün simetrik olasılık, 2.3.2.2.7.1.2.1/3-4
ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.1.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre
ilk simetrik olasılık, 2.3.2.1.7.1.3.1/5
ilk düzgün simetrik olasılık, 2.3.2.2.7.1.3.1/3-4
ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.1.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre
ilk simetrik olasılık, 2.3.2.1.7.2.1.1/7
ilk düzgün simetrik olasılık, 2.3.2.2.7.2.1.1/3-4
ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.2.1.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre
ilk simetrik olasılık, 2.3.2.1.7.2.2.1/7
ilk düzgün simetrik olasılık, 2.3.2.2.7.2.2.1/3-4
ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.2.2.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre
ilk simetrik olasılık, 2.3.2.1.7.2.3.1/5
ilk düzgün simetrik olasılık, 2.3.2.2.7.2.3.1/3-4
ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.2.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.7.4.1.1/5

ilk düzgün simetrik olasılık, 2.3.2.2.7.4.1.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.4.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.7.4.2.1/5

ilk düzgün simetrik olasılık, 2.3.2.2.7.4.2.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.4.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.7.4.3.1/5

ilk düzgün simetrik olasılık, 2.3.2.2.7.4.3.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.4.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.7.6.1.1/5

ilk düzgün simetrik olasılık, 2.3.2.2.7.6.1.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.6.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.7.6.2.1/5

ilk düzgün simetrik olasılık, 2.3.2.2.7.6.2.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.6.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.7.6.3.1/5

ilk düzgün simetrik olasılık, 2.3.2.2.7.6.3.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.6.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.7.7.1.1/7

ilk düzgün simetrik olasılık, 2.3.2.2.7.7.1.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.7.1.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.7.7.2.1/7

ilk düzgün simetrik olasılık, 2.3.2.2.7.7.2.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.7.2.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

ilk simetrik olasılık, 2.3.2.1.7.7.3.1/5

ilk düzgün simetrik olasılık, 2.3.2.2.7.7.3.1/3-4

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.7.7.3.1/7

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

ilk simetrik olasılık, 2.3.2.1.10.1.1.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.1.1.1/5-6

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
- ilk simetrik olasılık, 2.3.2.1.10.1.2.1/5
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.1.2.1/5-6

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
- ilk simetrik olasılık, 2.3.2.1.10.1.3.1/5
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.1.3.1/5-6

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
- ilk simetrik olasılık, 2.3.2.1.10.2.1.1/7
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.2.1.1/7-8

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
- ilk simetrik olasılık, 2.3.2.1.10.2.2.1/7
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.2.2.1/7-8

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
- ilk simetrik olasılık, 2.3.2.1.10.2.3.1/5
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.2.3.1/5-6

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
- ilk simetrik olasılık, 2.3.2.1.10.4.1.1/5
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.4.1.1/7-8

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
- ilk simetrik olasılık, 2.3.2.1.10.4.2.1/5
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.4.2.1/7-8

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
- ilk simetrik olasılık, 2.3.2.1.10.4.3.1/5
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.4.3.1/7-8

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
- ilk simetrik olasılık, 2.3.2.1.10.6.1.1/5
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.6.1.1/7-8

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
- ilk simetrik olasılık, 2.3.2.1.10.6.2.1/5
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.6.2.1/7-8

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
- ilk simetrik olasılık, 2.3.2.1.10.6.3.1/5
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.6.3.1/7-8

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

ilk simetrik olasılık, 2.3.2.1.10.7.1.1/7

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.7.1.1/7-8

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

ilk simetrik olasılık, 2.3.2.1.10.7.2.1/7

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.7.2.1/7-8

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

ilk simetrik olasılık, 2.3.2.1.10.7.3.1/5

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.10.7.3.1/5-6

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

ilk simetrik olasılık, 2.3.2.1.11.1.1.1/6

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.1.1.1/6

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

ilk simetrik olasılık, 2.3.2.1.11.1.2.1/6

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.1.2.1/6

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

ilk simetrik olasılık, 2.3.2.1.11.1.3.1/6

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.1.3.1/6

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

ilk simetrik olasılık, 2.3.2.1.11.2.1.1/8-9

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.2.1.1/9

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

ilk simetrik olasılık, 2.3.2.1.11.2.2.1/[illegible]

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.2.2.1/9

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

ilk simetrik olasılık, 2.3.2.1.11.2.3.1/6

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.2.3.1/6

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

ilk simetrik olasılık, 2.3.2.1.11.4.1.1/6

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.4.1.1/9

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

ilk simetrik olasılık, 2.3.2.1.11.4.2.1/6

ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.4.2.1/9

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
- ilk simetrik olasılık, 2.3.2.1.11.4.3.1/6
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.4.3.1/9

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
- ilk simetrik olasılık, 2.3.2.1.11.6.1.1/6
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.6.1.1/9

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
- ilk simetrik olasılık, 2.3.2.1.11.6.2.1/6
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.6.2.1/9

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
- ilk simetrik olasılık, 2.3.2.1.11.6.3.1/6
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.6.3.1/9

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
- ilk simetrik olasılık, 2.3.2.1.11.7.1.1/8-9
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.7.1.1/9

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
- ilk simetrik olasılık, 2.3.2.1.11.7.2.1/8-9
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.7.2.1/9

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
- ilk simetrik olasılık, 2.3.2.1.11.7.3.1/6
- ilk düzgün olmayan simetrik olasılık, 2.3.2.3.11.7.3.1/6

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 olan ve bağımlı olasılıklı dağılımın ilk bağımlı durumuyla başlayan dağılımlarda, simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre ilk simetrik olasılığın, tanım ve eşitliklerinden oluşmaktadır.

VDOİHİ Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre ilk simetrik olasılık kitabında, bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımlardan, bağımsız olasılıklı durumla başlayıp ilk bağımlı durumu bağımlı olasılıklı dağılımın ilk bağımlı durumu olan ve bağımlı olasılıklı dağılımın ilk bağımlı durumuyla başlayan dağılımlarda, simetrinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre ilk simetrik olasılığın, tanım ve eşitlikleri verilmektedir.

VDOİHİ'nin diğer ciltlerinde olduğu gibi bu ciltte de verilen tüm eşitlikler, olasılık tablolarından elde edilen verilerle üretilmiştir. Diğer eşitlikler ise ana eşitliklerden teorik yöntemle üretilmiştir. Eşitlik ve tanımların üretilmesinde dış kaynak kullanılmamıştır.