

VDOİHİ

Bağımlı ve Bir Bağımsız Olasılıklı
Farklı Dizilimsiz Bağımlı Durumlu
Simetrisinin İlk Herhangi Bir ve Son
Durumunun Bulunabileceği Olaylara
Göre Tek Kalan Düzgün Olmayan
Simetrik Olasılık

Cilt 2.3.3.3.6.1.1.23

İsmail YILMAZ

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VDOİHİ Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık Cilt 2.3.3.3.6.1.1.23

İsmail YILMAZ

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1. Bağımlı durumlu simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık

Dili: Türkçe + Matematik Mantık



K. Atatürk

Türkiye Cumhuriyeti Devleti
Kuruluşunun
100. Yılı Anısına

DÜZELTME

Bu cilt için

$fz^S_{j_s, j_{ik}, j_i}$

simgesi yerine

$fz^{DOST}_{j_s, j_{ik}, j_i}$

simgesi olmalı.

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 deklaratif bilgi yapılarıyla birlikte matematik mantık yapıları üzerine çalışmalar yapmıştır. Yazarın farklı alanlarda yapmış olduğu çalışmalar arasında ölçme ve değerlendirmeye yönelik çalışmaları da mevcuttur.

VDOİHİ

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- ✓ Teorik kabullerle genetikle ilişkilendirilmiştir.
- ✓ Bilgi merkezli değerlendirme yöntemidir.

Sanırım bilgi ve teknolojideki kaderimiz veriyle ilişkilendirilmiş.

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GÜLDÜNYA

Simge ve Kısaltmalar

n : olay sayısı

n : bağımlı olay sayısı

m : bağımsız olay sayısı

l : bağımsız durum sayısı

L : simetrimin bağımsız durum sayısı

l : simetrimin bağımlı durumlarından önce bulunan bağımsız durum sayısı

L : simetrimin bağımlı durumlarından sonra bulunan bağımsız durum sayısı

k : simetrimin bağımlı durumları arasındaki bağımsız durumların sayısı

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

l : ilgilenilen bağımlı durumun, bağımlı olasılıklı farklı dizilimsiz dağılımlardaki sırası

l : simetrimin ilk bağımlı durumunun, bağımlı olasılık farklı dizilimsiz dağılımın son olayı için sırası. Simetrimin sonuncu bağımlı olayındaki durumun, bağımlı olasılık farklı dizilimsiz dağılımlardaki sırası

l_i : simetrimin son bağımlı durumunun, bağımlı olasılıklı farklı dizilimsiz dağılımlardaki sırası. Simetrimin birinci bağımlı olayındaki durumun, bağımlı olasılık farklı dizilimsiz dağılımlardaki sırası

l_s : simetrimin ilk bağımlı durumunun, bağımlı olasılıklı farklı dizilimsiz

dağılımlardaki sırası. Simetrimin sonuncu bağımlı olayındaki durumun, bağımlı olasılık farklı dizilimsiz dağılımlardaki sırası

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

l_{sa} : simetrimin aranacağı bağımlı durumunun, bağımlı olasılıklı farklı dizilimsiz dağılımlardaki sırası. Simetrimin aranacağı bağımlı olayındaki durumun, bağımlı olasılık farklı dizilimsiz dağılımlardaki sırası

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

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

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

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

durum arasında bağımsız durumun bulunduğu 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

s : simetrik durum sayısı. Simetrinin bağımlı ve bağımsız durum sayısı

m : olasılık

M : olasılık dağılım sayısı

U : uyum eşitliği

u : uyum derecesi

s_i : olasılık dağılımı

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

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

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

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

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

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

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$f_{Z,0} S_{j_s,j_i,0}^{DST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı

durumlu bağımsız simetrisinin ilk ve son durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

$f_{Z,0} S_{j_s,j_i,D}^{DST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrisinin ilk ve son durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

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durumunun bulunabileceği olaylara göre tek kalan simetrik olasılık

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herhangi iki ve son durumuna bağlı tek kalan simetrik olasılık

$fz \overset{DSSST}{S}_{j_i}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin son durumunun bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

$fz \overset{DSSST}{S}_{j_i,0}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

$fz \overset{DSSST}{S}_{j_i,D}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin son durumunun bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

${}^0 \overset{DSSST}{fz \Rightarrow} j_i$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız durumlu simetrisinin son durumunun bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

${}^0 \overset{DSSST}{fz \Rightarrow} j_i,0$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

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$fzS_{j_{ik}, j^{sa}, D}^{DSST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu

bağımlı simetrisinin herhangi iki durumuna bağlı tek kalan düzgün simetrik olasılık

$fzS_{j_s, j_{ik}, j^{sa}}^{DSST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

$fzS_{j_s, j_{ik}, j^{sa}, 0}^{DSST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

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bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

${}^0S_{j_s, j_{ik}, j_i, 0}^{DSST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız veya bağımlı-bağımsız veya bağımsız-bağımsız durumlu bağımsız simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre tek kalan düzgün simetrik olasılık

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

$fz,0S_{j_s,j_{ik},j^{sa},j_i,0}^{DOST}$: bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık

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E2

BAĞIMLI ve BİR BAĞIMSIZ OLASILIKLI FARKLI DİZİLİMSİZ DAĞILIMLAR

Bağımlı ve Bir Bağımsız Olasılıklı Farklı Dizilimsiz Dağılımlar

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

bu yüğe sıralanmasıyla elde edilebilen kurallı tablolar kullanılmaktadır. Farklı dizilimsiz dağılımlarda durumların küçükten-büyükçe sıralama için verilen eşitliklerde kullanılan durum sayısının düzenlenmesiyle, büyükten-küçükçe sıralama durumlarının eşitlikleri elde edilebilir.

Farklı dizilimli dağılımlar, dağılımın ilk durumuyla başlayan (bunun yerine farklı dizilimli dağılımlarda simetrisinin ilk durumuyla başlayan dağılımlar), dağılımın ilk durumu hariçinde dağılımın herhangi bir durumuyla başlayan dağılımlar (bunun yerine farklı dizilimli dağılımlarda simetride bulunmayan bir durumla başlayan dağılımlar) ve dağılımın ilk durumu hariç olmak üzere dağılımın başladığı farklı ikinci durumla başlayıp simetrisinin 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 dağılım ve bir bağımsız olasılıklı durumla oluşturulabilen dağılımlara ve bağımlı olasılıklı dağılımların kendi olay sayısından (bağımlı olay sayısı) büyük olmasına (bağımsız olay sayısı) dağılımla bağımlı ve bir bağımsız olasılıklı dağılımlar elde edilir. Farklı dizilimli dağılımlarda, bu dağılımlara bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımlar elde edilir. Bağımlı ve bir bağımsız olasılıklı dağılımlar; bağımlı dağılımlara, bağımsız durumlar ilk durumdan dağıtılmaya başlanarak tabloları elde edilir. Bu bölümde verilen eşitlikler, bu yöntemle elde edilen kurallı tablolara göre verilmektedir. Farklı dizilimsiz dağılımlarda durumların küçükten-

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 eşitlikleri verilmektedir.

Farklı dizilimsiz dağılımlarda simetrinin durumlarının olasılık dağılımındaki sırasına göre 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 durumlarının bulunabileceği olaylara göre çıkarılan eşitlikler kullanılmaktadır. Bu eşitlikler, bir bağımlı ve bir bağımsız olasılıklı dağılımlar için VDO ve Çift Çıkartma ile çıkarılan eşitliklerle birleştirilerek, bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımların yeni eşitlikleri elde edilecektir. Eşitlikleri adlandırılmasında bağımlı olasılıklı farklı dizilimsiz dağılımlarda kullanılan adlandırmalar kullanılacaktır. Bu adlandırma 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/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 ve sınırların sınır değerleri, simetrinin küçükten-büyükçe 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 küçükten-büyükçe sıralanan dağılımlar için de simetrik olasılık eşitlikleri elde edilecektir.

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

SİMETRİDEN SEÇİLEN ÜÇ DURUMA GÖRE TEK KALAN DÜZGÜN OLMAYAN SİMETRİK OLASILIK

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

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

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

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{zS} S_{j_s, j_{ik}}^{j_i} = \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_{ik}+s-l-j_{sa}^{ik}+1)}$$

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

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

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

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

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

$$\begin{aligned}
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{l_i} \sum_{j_s=j_{ik}^{ik}+1}^{j_s=j_{ik}^{ik}+1} \binom{(\cdot)}{(\cdot)} \\
& \sum_{l_{ik}=l_i-n-D}^{l_{ik}=l_i-n-D} \sum_{j_i=j_i+s-l-j_{sa}^{ik}+2}^{j_i=j_i+s-l-j_{sa}^{ik}+2} \binom{(\cdot)}{(\cdot)} \\
& \sum_{n_{ik}=n_{ik}+k}^{n_{ik}=n_{ik}+k} \sum_{n_{is}=n_{is}+k-j_s+1}^{n_{is}=n_{is}+k-j_s+1} \binom{(\cdot)}{(\cdot)} \\
& \sum_{n_{ik}=n_{ik}-j_{ik}-k_1}^{n_{ik}=n_{ik}-j_{ik}-k_1} \sum_{n_{is}=n_{is}+j_{ik}-j_i-k_2}^{n_{is}=n_{is}+j_{ik}-j_i-k_2} \binom{(\cdot)}{(\cdot)} \\
& \sum_{n_{ik}=n_{ik}-k_2-j_{ik}+1}^{n_{ik}=n_{ik}-k_2-j_{ik}+1} \sum_{n_s=n-j_i+1}^{n_s=n-j_i+1} \binom{(\cdot)}{(\cdot)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot
\end{aligned}$$

$$\begin{aligned}
 & \sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \sum_{(j_i=l_i+n-D)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_i=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{()} \sum_{(n_{ik}=n_{ik}+j_{ik}-j_i)} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{sa}^{ik} - l_{k_1} - l_{k_2} + j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2} + j_{sa}^{ik} - j_{sa}^s)! \cdot (n_{ik} + j_{sa}^{ik} - j_{sa}^s)!} \\
 & \frac{(D - l - 1)!}{(n - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

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

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

$$D \geq n < n \wedge l = l_k > 0 \wedge$$

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

$$s: \{j_{sa}^i + 1, j_{sa}^{ik}, l_{k_2}, j_{sa}^s\} \wedge$$

$$s = 3 \wedge s = l + l_k \wedge$$

$$l = l_{k_1} + l_{k_2} \Rightarrow$$

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

$$\begin{aligned}
& \sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-1}^{j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \\
& \frac{(n_s-n_{ik}-1)!}{(j_i-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \cdot \frac{(n_s-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \\
& \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_i+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} +
\end{aligned}$$

$$\sum_{k=l}^{\binom{()}{}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{()}{}}$$

$$\sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)}$$

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

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}$$

$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - 1)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_i - s)!}{(j_{ik} + l_i - l - 1)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \\
& \sum_{j_{ik} = j_i + j_{sa}^{ik} - s}^{(l_s + s - l)} \sum_{(j_i = l_i + n - D)}^{(\cdot)} \\
& \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1}^{(\cdot)} \sum_{(n_s = n_{ik} + j_{ik} - j_i - k_2)}^{(\cdot)} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

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

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

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} & \sum_{j_i = l_i + n - D - s - 1}^{(l_i - l + 1)} \sum_{j_{sa}^{ik} = l_{ik} + n - D}^{(n_i - j_s + 1)} \\ & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\ & \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\ & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\ & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \end{aligned}$$

$$\begin{aligned}
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
& \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
& \sum_{n+l_k}^n \sum_{(n_{is}=n+l_k+1)}^{(n_{is}+1)} \\
& \sum_{n_{ik}+l_{k_2}-j_{ik}}^{n_{is}+j_s-j_{ik}-l_{k_2}} \sum_{(n_{ik}+j_{ik}-j_i-l_{k_2})}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
& \frac{(n_{is}-n_{ik}-1)!}{(n_{is}-2)! \cdot (n_{is}-j_s+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-1)!}{(n_{is}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \\
& \frac{(n_{ik}-n_s-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
& \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
& \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
& \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
& \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)}
\end{aligned}$$

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

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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

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

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$

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

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

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

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

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

$s = 3 \wedge s = \mathbb{k}_1 + \mathbb{k}_2 \wedge$

$\mathbb{k}_2 = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

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

$$\sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-s-1}^{(l_i-l+1)} \sum_{(j_i=l_i+n-D)}$$

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

$$\begin{aligned}
& \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (n - j_i)!} \\
& \frac{(l_s - 1)!}{(j_s - l_s + 1)! \cdot (j_s - 2)!} \\
& \frac{(l_i + j_{sa} - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (l_i + j_{sa} - j_{ik} - s)!} \\
& \frac{(D - l_i)!}{(D + 1 - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
& \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
& \sum_{j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{j_{sa}^{ik} = j_{sa}^{ik} + 1}^{(\cdot)} \\
& \sum_{j_{ik} = l_i}^{l_s + j_s - l} \sum_{j_{sa}^{ik} = D - s}^{(\cdot)} (j_i = j_{ik} + s - j_{sa}^{ik}) \\
& \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - k_2)}^{(\cdot)} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$l_i \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

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

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

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_i + j_{sa}^{ik} - D - s)} \sum_{j_{ik}=j_s + j_{sa}^{ik}}^{(j_i = l_i + n - D)} \sum_{n_{ik} = \mathbb{k}_2 - j_{ik} + 1}^{n_{ik} + \mathbb{k} (n_{is} = n + \mathbb{k} - j_s + 1)} \sum_{n_{is} = j_{ik} - \mathbb{k}_1}^{n_{is} + j_{ik} - j_i - \mathbb{k}_2} \sum_{n_{ik} = \mathbb{k}_2 - j_{ik} + 1}^{(n_s = n - j_i + 1)}$$

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

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

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

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

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

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

$$\begin{aligned}
& \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_i-l+1)} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+k_2-j_{sa}^{ik}-1}^{(n_i+j_s-j_{ik}-j_{sa}^{ik}-j_{ik}-k_2)} \sum_{(n_s=n-j_i+j_{ik})} \\
& \frac{(n_i-n_{ik}-1)!}{(j_s-2)! \cdot (n_i-n_{ik}-j_s+1)!} \\
& \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!} \\
& \frac{(n_i-n_s-1)!}{(n_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
& \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
& \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!}
\end{aligned}$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)}$$

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

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

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\cdot)}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l)!}{(D + j_i - n - l)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

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

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

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{\mathcal{S}_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=l_s+n-D)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_i-l+1)} \sum_{(j_i=l_i+n-D)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

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

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

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

$$\frac{(l_i - l)!}{(n - l)! \cdot (n - j_i)!}$$

$$\sum_{k=0}^{\infty} \sum_{i_s=l_i+n-D-s+1}^{\infty}$$

$$\sum_{k=j_s+j_{sa}^{ik}-1}^{l_i-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{l_i-l+1}$$

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

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)}$$

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

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

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

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

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

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

$$\sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_i + n - D - s + 1)}$$

$$\sum_{j_{ik} = j_s + j_{sa}^{ik} - l_{ik} - l_{k_1} - l_{k_2}}^{(n_i - j_s + 1)}$$

$$\sum_{n_i + l_{k_1} + l_{k_2} + l_{k_3} + \dots + l_{k_m} = n_i + l_{k_1} - j_s + 1}$$

$$\sum_{n_{ik} = n_{is} - j_{ik} - l_{k_1} - l_{k_2} - \dots - l_{k_m}} \sum_{n_{ik} + j_{ik} - j_i - l_{k_2}}$$

$$\frac{(n_i + j_{sa}^{ik} - j_{ik} - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i + j_{sa}^{ik} - j_{ik} - l_{k_1} - l_{k_2} - j_{sa}^s)! \cdot (n_i + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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

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

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_i + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} - j_{sa}^{ik} \leq j_i \leq n \wedge$$

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

$$l_{ik} \wedge l_i = l_{k_1} \geq 0 \wedge$$

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

$$s: \{j_{sa}^s, l_{k_1}, j_{sa}^{ik}, l_{k_2}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + l_{k_1} \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz \mathcal{S}_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

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

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

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

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

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

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

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

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

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

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)}$$

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

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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

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

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i + j_{sa}^{ik} - 1 \wedge$$

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

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

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

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

$$s \in \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik_2}, j_{sa}^i\}$$

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

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

$$f_z S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

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

$$\begin{aligned}
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - n - 1)! \cdot (n - n_i)!}{(n_s + j_i - n - 1)! \cdot (n - n_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (l_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{(\)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\)} \\
& \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\)} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1}^{(\)} \sum_{(n_s=n_{ik}+j_{ik}-j_i-k_2)}^{(\)} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$

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

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

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

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

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j_s=l_{ik}+n-D-j_{sa}^{ik}+1}^{(l_i-l+1)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_i-l+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{j_s=l_i+n-D-s}^{(l_s-l-1)+2} \sum_{j_{ik}=j_{sa}^{ik}-1}^{(j_i+l_i-j_i-s-1)} \sum_{n_i=n+l_k}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})} \\
& \frac{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D > n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{sa}^{ik} - j_{sa}^s + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

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

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

$$D \geq n < n \wedge l = k \geq 0 \wedge$$

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + n - D)}^{(j_s + s - l)} \sum_{(j_i = n - D)}^{(n - j_s)} \sum_{(n_i = n + \mathbb{k}_1 - j_{ik} - \mathbb{k}_1)}^{(n_i - j_s)} \sum_{(n_s = n + \mathbb{k}_2 - j_{ik} - 1)}^{(n_s - n - j_i + 1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)}$$

$$\begin{aligned}
& \sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{(n_{ik}+j_{ik}-j_i-l_{k_1})} \\
& \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s+1)!(n_{is}+j_s-n_{ik}-j_{ik})!} \\
& \frac{(n_i-1)!}{(j_i-1)!(n_{ik}+j_{ik}-n_s-j_i)!} \cdot \frac{(n_s-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \\
& \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_{ik}-l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \\
& \sum_{k=l} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
& \sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{()}
\end{aligned}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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

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

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

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

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

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 =$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + n - D)}$$

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

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

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}$$

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

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

$$\begin{aligned}
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_s - l)!}{(D + j_s - n - l_i)! \cdot (j_s - l_i)!} + \\
& \sum_{j_{ik} = n + k_2 - j_{ik} + 1}^{l_i + j_{sa}^{ik} - s + 1} \sum_{j_{sa}^{ik} = l + 1}^{(l_s - l + 1)} \binom{l_s - l + 1}{j_{sa}^{ik}} \\
& \sum_{n_i = n + k_1}^n \sum_{(n_{is} = n + k_1 - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)} \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}-s-j_{sa}^{ik})}^{(\cdot)} \sum_{n+l_k}^{(n_i+l_k+1)} \sum_{(n_i=n+l_k+1)}^{(n_i+l_k+1)} \sum_{(j_{ik}=n_{is}+j_{ik}-l_{k_1})}^{(\cdot)} \sum_{(j_i=l_{k_2})}^{(\cdot)} \frac{(n_i + j_s + j_{sa}^{ik} - s - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_i + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > n - 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

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

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

$$D \geq n < n \wedge l_k > 0 \wedge$$

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

$$s: \{j_{sa}^s, l_{k_1}, l_{k_2}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + l_k \wedge$$

$$l_{k_z}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=l_s+n-D)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-l-s+1} \binom{(\quad)}{\quad} \\
 & \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_i}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_s-n_i-1)!}{(j_i-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \cdot \frac{(n_s-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_{ik}-l_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} +
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(n_i-j_s+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_i+j_{sa}^{ik}-l-s+1} \binom{(\quad)}{\quad} \\
 & \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_s+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)}
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - 1)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_i + n - D - s + 1)} \\
& \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

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

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

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} & \sum_{j_s=2}^{j_{ik}-j_{sa}^{ik}+1} \sum_{j_{ik}=j_s+j_{sa}^{ik}-s}^{j_i+l_{ik}+n+s-D-j_{sa}^{ik}} \sum_{l_s=0}^{l_s+s-l} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \\ & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\ & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\ & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \end{aligned}$$

$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)}^{(l_s - l + 1)} \\
 & \sum_{j_{ik} = j_i + j_{sa}^{lk} - s}^{(l_{ik} + s - l - j_{sa}^{lk})} \sum_{(j_i = l_{ik} + s - l + 1)}^{(l_{ik} + s - l - j_{sa}^{lk})} \\
 & \sum_{n+l_k}^n \sum_{(n_{is} = n + l_k + 1)}^{(n_{is} + 1)} \\
 & \sum_{n_{ik} + l_{k2} - j_{ik}}^{n_{is} + j_s - j_{ik} - 1} \sum_{(n_{ik} + j_{ik} - j_i - l_{k2})}^{(n_{ik} + j_{ik} - j_i - l_{k2})} \\
 & \sum_{(j_i = j_i + 1)}^{(n_{ik} + l_{k2} - j_{ik})} \sum_{(j_i = j_i + 1)}^{(n_{ik} + l_{k2} - j_{ik})} \\
 & \frac{(n_{is} - n_{is} - 1)!}{(j_i - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{lk} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{lk} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
 & \sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{lk} + 1)}^{()} \\
 & \sum_{j_{ik} = j_i + j_{sa}^{lk} - s}^{(l_s + s - l)} \sum_{(j_i = l_{ik} + n + s - D - j_{sa}^{lk})}^{(l_s + s - l)}
 \end{aligned}$$

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

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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

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

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$

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

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

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

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

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

$s = 3 \wedge s = \mathbb{k}_1 + \mathbb{k}_2 \wedge$

$\mathbb{k}_2 = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^{\mathcal{S}_{j_s, j_{ik}, j_i}} = \sum_{k=l} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

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

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

$$\begin{aligned}
& \sum_{n_{ik}=n+l_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
& \frac{(l_s - 1)!}{(j_s - l_s + 1)! \cdot (j_s - 2)!} \\
& \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \\
& \frac{(D - l_i)!}{(D + 1 - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \\
& \sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{j_{sa}^{ik} = j_{sa}^{ik} + 1}^{()} \\
& \sum_{j_i = l_{ik} + n - D}^{l_s - j_{ik} - l} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{()} \\
& \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - k_2)}^{()} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$l_i \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

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

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

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{l=1}^{(l_i - n - D - j_{sa}^{ik})} \sum_{(j_s = l, n - D)}^{(n - D - j_{sa}^{ik})} \sum_{i=1}^{l+1} \sum_{j_{ik} = l_{ik} + n - j_{sa}^{ik}}^{j_{ik} + s - j_{sa}^{ik}} \sum_{n_i = \mathbb{k}}^n \sum_{\mathbb{k}} (n_{is} = n + \mathbb{k} - j_s + 1) \sum_{n_{ik} = \mathbb{k}_2 - j_{ik} + 1}^{n_{ik} + j_{ik} - j_i - \mathbb{k}_2} (n_{ik} + j_{ik} - j_i - \mathbb{k}_2) \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\begin{aligned}
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-1} \sum_{(n_s=n-j_i+l_{k_2})}^{(n_i-j_s+1)} \\
& \frac{(n_i-n_{ik}-1)!}{(j_s-2)! \cdot (n_{is}-n_{ik}-j_s+1)!} \\
& \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!} \\
& \frac{(n_i-n_s-1)!}{(n_{ik}+j_{ik}-n_s-j_i)!} \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
& \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
& \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!}
\end{aligned}$$

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

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{()} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

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

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\cdot)}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i \leq j_i + j_{sa}^{ik} \wedge$$

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

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

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

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

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

$$s = 3 \wedge s = s + 1 \wedge$$

$$\mathbb{k} : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + 1 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_i-l+1)} \sum_{(j_i=l_i+n-D)}$$

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

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - 1)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_i - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \\
& \sum_{j_{ik} = j_i + j_{sa}^{ik} - s}^{(l_s + s - l)} \sum_{(j_i = l_i + n - D)}^{(l_s + s - l)} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(\cdot)} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{(\cdot)} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

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

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

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f^{z=2} = f^{(l_s-l+1)} = \sum_{k=l}^{(l_s-l+1)} \binom{l_s-l+1}{k} (j_s = l_s + n - D)$$

$$j_{ik} = l_i + j_{sa}^{ik} - D - s \quad (j_i = j_{ik} + s - j_{sa}^{ik})$$

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

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

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

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

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

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

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

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

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-j_{ik}-j_{sa}^{ik}}$$

$$\sum_{n+l_k}^{(n_i-j_s+1)} \sum_{(n_i+n+l_k-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}-j_{ik}-l_{k_1}} \sum_{(n_{ik}+j_{ik}-j_i-l_{k_2})}$$

$$\frac{(n_i + j_s - j_{sa}^{ik} - j_{ik} - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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

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

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_i + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} - j_{sa}^{ik} \leq j_i \leq n \wedge$$

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

$$l \wedge I = k \geq 0 \wedge$$

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

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + k \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{\mathcal{S}_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_{ik}+s-l-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=n+1}^n \sum_{(n_i+j_s+1)}^{(n+j_s+1)}$$

$$\sum_{(n_{is}+j_s-j_{ik})}^{(n_{ik}+j_{ik}-n_{is})} \sum_{(j_{ik}+1)}^{(n-j_i+1)}$$

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

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

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

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

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

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

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

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

GÜLDÜMÜSÜ

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

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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

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

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i + j_{sa}^{ik} - 1 \wedge$

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

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

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

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

$s \in \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik_2}, j_{sa}^i\}$

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

$\mathbb{k}_z: z = 1 \wedge \mathbb{k} = \mathbb{k}_1 + 1 \Rightarrow$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}$$

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

$$\begin{aligned}
& \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_s)!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=l}^{(\)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\)} \\
& \sum_{j_{ik}=l_{ik}+\mathbf{n}-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(\)} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\)} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$

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

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

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

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

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z = j_{ik} j_i = \sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + n - D)}^{(j_i + j_{sa}^{ik} - s)} \sum_{j_{ik} = l_{ik} + n - D}^{(l_s + s - l)} \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\begin{aligned}
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=1}^{(l_s - l + 1)} \sum_{j_s=l_s+n-k}^{(l_s - l + 1)} \cdot \\
& \sum_{j_{ik}=l_{ik}+n-D}^{(l_i - l + 1)} \sum_{(j_i=l_s+s-l+1)}^{(l_i - l + 1)} \cdot \\
& \sum_{n_i=n+l_k}^{(n_i - j_s + 1)} \sum_{(n_{is}=n+l_k - j_s + 1)}^{(n_i - j_s + 1)} \cdot \\
& \sum_{n_{ik}=n+l_{k_2} - j_{ik} + 1}^{n - j_{ik} - l_{k_1}} \sum_{(n_s=n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - l_{k_2})} \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

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

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

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1, \dots)}$$

$$\sum_{(j_i=j_i+j_{sa}^{ik}, \dots)}$$

$$\sum_{(n_i-j_s+1, \dots)}$$

$$\sum_{(n_{ik}=n_{is}, \dots)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - l_{k_1} - l_{k_2} - 1)! \cdot (n_i + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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

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

$$D \geq n < n \wedge l_s = D - n + 1 \wedge$$

$$2 \leq j_{sa}^{ik} - j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} < j_i \leq n$$

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

$$D \geq n < n \wedge l = k \geq 0 \wedge$$

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

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

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

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik_2}+1}^{n_{is}+j_s-j_{ik_2}-j_{ik_1}+j_{ik_2}-l_{k_2}} \sum_{(n_s=n-j_i+1)}$$

$$\frac{(n_i - n_{ik_2} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

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

$$\frac{(n_s - n_s - 1)!}{(n_{ik} + j_{ik} - n_s - j_i)!}$$

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

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

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

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

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

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{i_s} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_s - j_{ik})!} \cdot \\
 & \frac{(n_s - j_i - n - l - 1)!}{(n_s - j_i - n - l - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{i_s} - j_{s_a}^{ik} + 1)!}{(j_{i_s} + l_{ik} - j_{i_s} - j_{s_a}^{ik})! \cdot (j_{ik} - j_s - j_{s_a}^{ik} + 1)!} \cdot \\
 & \frac{(l_i + j_{s_a}^{ik} - l_{ik} - s)!}{(j_{i_s} + l_i - j_i - l_{ik})! \cdot (j_i + j_{s_a}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{\binom{D}{l}} \sum_{(j_s=j_{ik}-j_{s_a}^{ik}+1)}^{\binom{D}{j_s}} \\
 & \sum_{j_{ik}=l_i+n+j_{s_a}^{ik}-D-s}^{l_s+j_{s_a}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{s_a}^{ik})}^{\binom{D}{j_i}} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{i_s}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{\binom{D}{n_{ik}}}
 \end{aligned}$$

GÜLDÜSÜNYA

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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

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

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

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

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

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 =$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

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

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

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

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

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

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

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

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{sa}^{ik} - s)!}$$

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

$$\frac{(n - l_i)!}{(n - j_i)!}$$

$$\frac{(n - l_i)!}{(n - j_i)!}$$

$$\frac{(n - l_i)!}{(n - j_i)!}$$

$$\frac{(n - l_i)!}{(n - j_i)!}$$

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$$\frac{(n - l_i)!}{(n - j_i)!}$$

GÜLDÜMÜS

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

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

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

$$\sum_{i=l_i+n}^{l+1} \sum_{j=s+1}^{j_{ik} - j_s - j_{sa}^{ik} + 1}$$

$$\sum_{j_s=j_s+j_{sa}^{ik}}^{j_{ik} - j_s - j_{sa}^{ik} + 1} \sum_{j_{ik}=j_{ik}+s-j_{sa}^{ik}}$$

$$\sum_{n_i=n_i+l_{ik}}^{n_i+l_{ik}+1} \sum_{n_{is}=n+l_{ik}-j_s+1}$$

$$\sum_{n_{is}=n_i+j_{sa}^{ik}-l_{ik}-l_{k_1}} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_{k_2}}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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

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

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_i + s - n - 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_s + s - j_{sa}^s \leq j_i \leq n \wedge$$

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

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z \mathcal{S}_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-1)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=\dots}^{l_{ik}-l+1} \sum_{(j_i=\dots)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+\dots}^n \sum_{(n_i=\dots)}^{(n_i)}$$

$$\sum_{n_i=n+\dots}^{n_i-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_s=n-j_i+1)}$$

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

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

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

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

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

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

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

$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{(j_i=l_i+n)}^{(\cdot)}$$

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

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_k}^{(\cdot)} \sum_{(n_{ik}+j_{ik}-j_i)}^{(\cdot)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - l_k - l - j_{sa}^s)!}{(n_i - n - l_k - l - j_{sa}^s)! \cdot (n_{is} + j_{sa}^{ik} - l_k - j_{sa}^s)!} \cdot \frac{(l_k - l - 1)!}{(l_k - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq n - n + 1 \wedge$$

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

$$j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} \leq j_i \leq n - l_i$$

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

$$l_i \leq n - l_i + s - n \wedge$$

$$D \geq n < n \wedge l = k \Rightarrow n - l_i \wedge$$

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

$$s: \{j_{sa}^s, k_1, j_{sa}^s, k_2, j_{sa}^i\} \wedge$$

$$k_2 = 3 \wedge k_1 = s + k_2 \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{j_i+j_{sa}^{ik}-s} \sum_{(j_i=s+1)}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
 & \frac{(n_i-1)!}{(j_s-2)! (n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! (n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_s-n-1)!}{(j_i-n-1)! (n_{ik}+j_{ik}-n_s-j_i)!} \cdot \frac{(n_s-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_i+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=l}^{\binom{()}{}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{()}{}} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}-l+1} \sum_{(j_i=l_{ik}+s-l-j_{sa}^{ik}+2)}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - 1)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_i - s)!}{(j_{ik} + l_i - s)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \\
& \sum_{j_{ik} = j_i + j_{sa}^{ik} - s}^{(l_{ik} + s - l - j_{sa}^{ik} + 1)} \sum_{(j_i = s + 1)}^{(\cdot)} \\
& \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1}^{(\cdot)} \sum_{(n_s = n_{ik} + j_{ik} - j_i - k_2)}^{(\cdot)} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

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

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

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

$$l_i \leq D + s - n \wedge$$

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

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

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

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

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

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

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

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

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

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

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

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

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

$$\sum_{(j_s = l + 1)}^{(n_i - j_s + 1)} \sum_{(j_s = l + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{(j_s = l + 1)}^{n_{is} + j_{sa}^{ik} - l_{k_1}} \sum_{(j_s = l + 1)}^{(n_{ik} - j_s - l_{k_2})}$$

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

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

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

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

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

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

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

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

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

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_i-j_{l_{k_2}})}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - j_s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{sa}^{ik} - j_{ik} - j_{sa}^s)!}$$

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

$$\frac{(D - l_{k_1} - l_{k_2})!}{(D + j_{sa}^{ik} - n - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$

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

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

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

$l_i \leq n + s - n \wedge$

$D > n < n \wedge l_{k_1} + l_{k_2} \geq l$

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

$\{j_{sa}^s, l_{k_1}, j_{sa}^{ik}, l_{k_2}, j_{sa}^i\}$

$s = 3 \wedge s = s$

$l_{k_2} = l - l_{k_1} = l_{k_1} + l_{k_2} \Rightarrow$

$$f_z S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

$$\begin{aligned}
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_s - j_{ik})!} \cdot \\
& \frac{(n_s - j_i - n - l + 1)!}{(n_s - j_i - n - l - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{ik} - l_{k_1} - s)!}{(j_{ik} + l_{k_1} - j_i - l_{k_1})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{\binom{()}{}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{()}{}} \\
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{\binom{()}{}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{\binom{()}{}} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot
\end{aligned}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

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

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

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

$$l_i \leq D + s - n \wedge$$

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\)} \sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_s + j_{sa}^{ik} - l} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{(l_i - l + 1)} \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

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

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

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

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

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

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

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

$$\sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - k_2)}^{(n_s - n_{ik} + j_{ik} - j_i - k_2)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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

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

$$1 \leq l \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

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

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

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

$$l_i \leq D + s - n \wedge$$

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_i, j_i} = \sum_{k=l}^{(l_{ik} - j_{sa}^{ik+2})} \sum_{j_s=j_s}^{(l_i-l+1)} \sum_{j_{sa}=j_{sa}}^{(s-j_{sa}^{ik})} \sum_{n_i=n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_{is}+j_{ik}-\mathbb{k}_1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \sum_{n_s=n-j_i+1}^{(n_s-n-j_i+1)}$$

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

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot$$

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

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

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

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

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{(n_i-n-l-j_{sa}^{ik}+2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n_i-n-l-j_{sa}^{ik}+2)} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(n_i-n-l-j_{sa}^{ik}+2)}$$

$$\sum_{n_i=n+l}^n \sum_{(n_{is}=n-l-j_{sa}^{ik}+1)}^{(n_i-n-l-j_{sa}^{ik}+2)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l}^{(n_i-n-l-j_{sa}^{ik}+2)} \sum_{(n_{ik}+j_{ik}-j_i=n_i-n-l-j_{sa}^{ik}+2)}^{(n_i-n-l-j_{sa}^{ik}+2)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - l - 1)! \cdot (n_i - n - l - j_{sa}^{ik} - 1)! \cdot (n_i - n - l - j_{sa}^{ik} - 1)!}{(n_i - n - l - j_{sa}^{ik} - 1)! \cdot (n_i - n - l - j_{sa}^{ik} - 1)! \cdot (n_i - n - l - j_{sa}^{ik} - 1)!} \cdot \frac{(l - l - 1)!}{(j_s - 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq n - n + 1 \wedge$$

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

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n_i$$

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

$$l_i \leq n_i + s - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \Rightarrow \mathbb{k} \wedge$$

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

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

$$2 \wedge \mathbb{k} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(n_i-n-l+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

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

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{(n_{ik}+j_{ik}-j_i-l_{k_1})}$$

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

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

$$\frac{(n_s-n_{ik}-1)!}{(j_i-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!}$$

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

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

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

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

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

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

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{()}$$

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$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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

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

$$D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

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

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

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

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

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_{ik}+s-l-j_{sa}^{ik}+1)}$$

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

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

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

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

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

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

$$\frac{(l_i + j_{sa}^{ik} - l - 1)!}{(j_{ik} + l_i - j_i - l_{ik} - j_{sa}^{ik} - 1)! \cdot (j_i + j_{sa}^{ik} - l - 1)!}$$

$$\frac{(l_i - l)!}{(n - l)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{l_i - l + 1} \sum_{j_s = j_{ik} - j_{sa}^{ik} + 1}^{l_i - l + 1}$$

$$\sum_{k = j_{sa}^{ik} + 1}^{l_i - l + 1} \sum_{(j_i = l_{ik} + s - l - j_{sa}^{ik} + 2)}$$

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

$$\sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - k_2)}$$

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

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

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

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

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

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

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \frac{(l_{ik}+s-j_{sa}^{ik}+1)!}{(j_{ik}-j_{sa}^{ik}-s)! \cdot (j_{ik}-j_{sa}^{ik}-s)!} \cdot \frac{(n_i-j_s+1)!}{(n_i-j_s+1)! \cdot (n_i-j_s+1)!} \cdot \frac{(n_{ik}=n_{is}+j_{ik}-l_{k_1})!}{(n_{ik}+j_{ik}-j_i-l_{k_2})!} \cdot \frac{(n_i+j_s-j_{sa}^{ik}-j_{ik}-s-l_{k_1}-l_{k_2}-j_{sa}^s)!}{(n_i-n_{k_1}-l_{k_2})! \cdot (n_{k_1}+j_{sa}^{ik}-j_{ik}-s-j_{sa}^s)!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!}$$

$$D \geq n < n \wedge l \neq 1 \wedge l_s \leq n - l + 1 \wedge$$

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

$$j_{ik} + s - j_{sa}^{ik} = j_i \leq n$$

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

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

$$D \geq n < n \wedge l = k \geq 0 \wedge$$

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

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + k \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz \mathcal{S}_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)}$$

$$\sum_{n_i=n+l}^n \sum_{(n+l-j_s+1)}^{(n-j_s+1)}$$

$$\sum_{i=1}^{n_i+j_s-j_{ik}} \sum_{(n_{ik}+j_{ik}-j_{ik})}^{(n_{ik}+j_{ik}-j_{ik})}$$

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

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

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

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)}$$

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$$\begin{aligned}
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_s - j_{ik})!} \cdot \\
& \frac{(n_s - j_i - n - l - 1)!}{(n_s - j_i - n - l - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{ik} - l_{k_1} - s)!}{(j_{ik} + l_{k_1} - j_i - l_{k_1})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{\binom{D}{j_s}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{D}{j_s}} \\
& \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{(j_i=l_i+n-D)}^{\binom{l_s+s-l}{j_i}} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{\binom{D}{j_s}} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot
\end{aligned}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

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

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

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

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

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

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

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_i + n + j_{sa}^{ik} - D - s - 1} \sum_{(j_i = l_i + n - D)}^{(l_i - l + 1)}$$

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

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}$$

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

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

$$\begin{aligned}
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(l_i - l)!}{(D + j_{ik} - n - l_i)! \cdot (j_i - l)!} + \\
& \sum_{j_{ik}=l_i}^{l_{ik}} \sum_{j_{sa}^{ik}=j_{ik}+1}^{(l_i-l+1)} \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_k-1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k-2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot
\end{aligned}$$

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

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

$$\sum_{j_{ik} = l_i + n + j_{sa}^{ik} - D - s}^{l_{ik} - l + 1} \sum_{(j_{ik} = j_i + s - j_{sa}^{ik})}^{(\)}$$

$$\sum_{n + k}^n \sum_{(n_{is} = n + k + 1)}$$

$$\sum_{(j_i - k_2)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - k - s - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n_i + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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

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

$$D \geq n < n \wedge l \neq 0 \wedge l_s \leq D - n \wedge l \wedge$$

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

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

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

$$D + s - n < D - j_{ik} + s - n - j_{sa}^{ik} \wedge$$

$$D - n < n \wedge I = k \geq 0 \wedge$$

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

$$s: \{j_{sa}^i, k_1, j_{sa}^{ik}, k_2, j_{sa}^s\} \wedge$$

$$s = 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

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

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j_i=l_i+n-)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_i=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{\Delta} \sum_{(n_s=n-j_i+)}^{(n_i-j_s+1)}$$

$$\frac{(n_s - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{ik} + j_i - n_s - j_i)!}$$

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

$$\frac{(n_s - n_s - 1)!}{(n_s - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

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

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

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

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

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

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

$$fzS_{j_s, j_{ik}, j_i} = \dots$$

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$$\begin{aligned}
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_s - j_{ik})!} \cdot \\
& \frac{(n_s - j_i - n - j_{ik} - 1)!}{(n_s - j_i - n - j_{ik} - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_s - l_{ik} - s)!}{(j_{ik} + l_{ik} - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{\binom{()}{j_s = j_{ik} - j_{sa}^{ik} + 1}} \\
& \sum_{j_{ik} = l_i + n + j_{sa}^{ik} - D - s}^{l_s + j_{sa}^{ik} - l} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{\binom{()}{j_i = j_{ik} + s - j_{sa}^{ik}}} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{\binom{()}{n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2}} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot
\end{aligned}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

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

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

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

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

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_{z^S} S_{j_s, j_{ik}, j_i} &= \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=2)} \\ &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_i-l+1)} \sum_{(j_i=l_i+n-D)} \\ &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\ &\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \end{aligned}$$

$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{j_s=l_i+n-D-s}^{(l_i-l-s+2)} \sum_{j_{ik}=j_{sa}^{ik}-1}^{(l_i-l+1)} \sum_{n_i=n+l_k}^{(n_i-j_s+1)} \sum_{n_{is}=n+l_k-j_s+1}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
& \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_i-n_{is}-1)!} \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot
\end{aligned}$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{()} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

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

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_k}^{()} \sum_{(n_{ik}=n_{is}+j_{ik}-j_i)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{sa}^{l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2} - j_{sa}^s)! \cdot (n_{is} + j_{sa}^{ik} - j_{sa}^s)!}$$

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

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

$$D \geq n < n \wedge l \neq i \wedge l_s \leq n - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{l_{k_1} - l_{k_2} - j_{sa}^s} - 1 \leq j_{ik} \leq j_{sa}^{l_{k_1} - l_{k_2} - j_{sa}^s} + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n - j_{sa}^{l_{k_1} - l_{k_2} - j_{sa}^s} - j_{sa}^{ik} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = n - l_i + j_s - s > 0 \wedge$$

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

$$D \geq n < n - l = l_k \Rightarrow l_k \wedge$$

$$j_{sa}^{l_{k_1} - l_{k_2} - j_{sa}^s} - 1 \wedge j_{sa}^{l_{k_1} - l_{k_2} - j_{sa}^s} - j_{sa}^{l_{k_2} - l_{k_1} - j_{sa}^s} - 1 \wedge$$

$$s: \{j_{sa}^s, l_{k_1}, j_{sa}^{l_{k_2} - l_{k_1} - j_{sa}^s}\} \wedge$$

$$2 \wedge l_{k_2} = s + l_{k_1} \wedge$$

$$l_{k_2}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=2)}^{(l_i+n-D-s)}$$

$$\begin{aligned}
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
& \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s+1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \\
& \frac{(n_s-n_s)!}{(j_i-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \\
& \frac{(n_i-1)!}{(n_s)! \cdot (j_i-n-1)! \cdot (n-j_i)!} \\
& \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
& \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_i+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - 1)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_i - s)!}{(j_{ik} + l_i - l - s)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_i + n - D - s + 1)}^{(l_s - l + 1)} \\
& \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{(j_i + j_{sa}^{ik} - j_{ik} - s)} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{(j_i + j_{sa}^{ik} - j_{ik} - s)} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{(j_i + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq l - 1 \wedge$$

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

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

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

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

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\sum_{j_{sa}^{ik}=j_{sa}^i-1} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_{ik}-j_{sa}^{ik}+1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}-l+1} \sum_{j_i=l_i+n-D}^{l_i-l+1} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

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

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

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

$$\sum_{k=l}^{()} \sum_{j_s=j_{ik}+1}^{()} (j_s=j_{ik}+1)$$

$$\sum_{i=1}^{l_{ik}-1} \sum_{j_{ik}=j_{ik}+s-j_{sa}^{ik}}^{()} (j_{ik}=j_{ik}+s-j_{sa}^{ik})$$

$$\sum_{k_1=0}^{n_i+l_{ik}} \sum_{k_2=0}^{(n_{is}=n+l_{ik}-j_s+1)} (n_{is}=n+l_{ik}-j_s+1)$$

$$\sum_{k_1=0}^{()} \sum_{k_2=0}^{()} (n_s=n_{ik}+j_{ik}-j_i-k_2)$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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

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

$$D \geq n < n \wedge l \neq i \wedge l \leq D - n + 1 \wedge$$

$$D + j_s + s - n < l \leq D + l_{ik} + s - n - j_{sa}^{ik} \wedge 1 \leq l \leq i \wedge l - 1 \wedge$$

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

$$j_s + j_{sa}^{ik} \leq j_i \leq n \wedge$$

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

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

$$D \geq n < n \wedge l = k \geq 0 \wedge$$

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

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

$$\frac{(l - ik - l)! \cdot (l - j_s + 1)!}{\sum_{j_{sa}^{ik} + 1}^{(j_i = l_i + 1)} \sum_{n_i = n + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \sum_{n_{ik} = n_{is} - j_{ik} + 1}^{(n_s = n - j_i + 1)}$$

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

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

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

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

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

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

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

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

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

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{()} \sum_{(n_s=n_{ik}+j_i-j_{ik_2})}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - j_{sa}^{ik})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s - j_{sa}^{ik} - j_{ik} - s - j_{sa}^{ik})!} \cdot \frac{(l_s - l + 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_s - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l_i$$

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

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

$$l_{ik} - l_{k_1} + 1 = l_s \wedge l_{ik} + j_{sa}^{ik} - s > l_{ik}$$

$$D + s - n < l_i \leq D + l_s + s - n - l_i \wedge$$

$$D \geq n < n \wedge l = l_{k_1} = 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^{l_{k_1}} - 1 \wedge j_{sa}^s = j_s^l - 1 \wedge$$

$$s: \{j_s^s - 1, j_{sa}^{ik}, l_{k_2}\} \wedge$$

$$s = 3 \wedge s = s + l_k \wedge$$

$$z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{()}$$

$$\begin{aligned}
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{(n_{ik}+j_{ik}-j_i-l_{k_1})} \\
& \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s+1)!(n_{is}+j_s-n_{ik}-j_{ik})!} \\
& \frac{(n_s-n_s)!}{(j_i-1)!(n_{ik}+j_{ik}-n_s-j_i)!} \\
& \frac{(n_i-1)!}{(n_s)!(j_i-n-1)! \cdot (n-j_i)!} \\
& \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
& \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_i+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \\
& \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{()}
\end{aligned}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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

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

$$D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

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

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

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

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

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

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

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

$$\sum_{n_{ik}=n+\mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s=n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}$$

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

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - l_s + 1)!} \cdot \\
& \frac{(l_s - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{l+1} \sum_{(j_s=2)}^{l+1} \\
& \sum_{ik=j_i+j_{sa}^{ik}-s}^{l_i-l+1} \sum_{(j_i=l_s+s-l+1)}^{l_i-l+1} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$

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

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

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

$$\sum_{(l_s+s-l)} \sum_{(j_{ik}=j_i+j_s)}$$

$$\sum_{(n_i-j_s+1)} \sum_{(n_i+l_k)}$$

$$\sum_{(n_{ik}=n_{is}-j_{ik}-l_{k_1})} \sum_{(n_{ik}+j_{ik}-j_i-l_{k_2})}$$

$$\frac{(n_i + j_s - j_{sa}^{ik} - j_{ik} - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - l_{k_1} - l_{k_2} - 1)! \cdot (n_i + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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

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

$$D \geq n < n \wedge l \neq 1 \wedge l_s \leq n - 1 \wedge$$

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

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

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

$$l_{ik} \leq D + j_i - n \wedge$$

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

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

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

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

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

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

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

$$\sum_{n_i=n+l}^n \sum_{(n_i+j_s+1)}^{(n_i+j_s+1)}$$

$$\sum_{n_i=n+l}^{n_i+j_s-j_{sa}^{ik}} \sum_{(n_{ik}+j_{ik}-j_{sa}^{ik})}^{(n_{ik}+j_{ik}-j_{sa}^{ik})}$$

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

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

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

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

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

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

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

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$$\begin{aligned}
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_s - j_s)!} \cdot \\
& \frac{(n_s - j_i - \mathbf{n} - j_i - j_s - l - 1)!}{(n_s - j_i - \mathbf{n} - j_i - j_s - l - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=l} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\)} \\
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\)} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot
\end{aligned}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

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

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

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

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

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S j_s, j_{ik}, j_i = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}$$

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

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

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

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

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

$$\begin{aligned}
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k_1=0}^{(l_s - l + 1) - j_s} \sum_{k_2=0}^{(l_s - l + 1) - j_s - k_1} \binom{l_s - l + 1 - j_s - k_1 - k_2}{k_1, k_2} \\
& \sum_{j_s = j_s + j_{sa}^{ik} - 1}^n \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{(n_i - j_s + 1)} \\
& \sum_{n_i = n + k} \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - k_2)}^{(n_i - j_s + 1)} \\
& \frac{(j_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$n - l_i \neq j_i \wedge l \neq j_i \wedge l_s \leq D - n + 1 \wedge$$

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

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

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

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k \geq 0 \wedge$$

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

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s}^{j_{ik} j_i} = \sum_{k=l}^{(j_s - j_{sa}^{ik} + 1)} \sum_{j_{ik}=j_i + j_{sa}^{ik}}^{(l_s + s - l)} \sum_{n_i=n+k}^{(n_i - j_s + 1)} \sum_{n_{is}=n+k-j_s+1}^{(n_i + j_{ik} - k_1)} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{(n_{ik} + j_{ik} - j_i - k_2)} \sum_{n_s=n-j_i+1}^{(n_s - 1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_i-l+1)} \sum_{(j_i=l_s+s-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}}^{(n_{ik}+j_{ik}-i-k_2)} \\
 & \sum_{n_{ik}=n+k_2-1}^{(n_s-n-j_i+1)} \\
 & \frac{(n_i-n_{ik}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{ik}+j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_i-n_s-1)!}{(n_{ik}+j_{ik}-n_s-j_i)!} \cdot \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} -
 \end{aligned}$$

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

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

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

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\quad)}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$

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

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

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

$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$

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

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

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

$s = 3 \wedge s = s + 1$

$\mathbb{k}_1 + z = 2 \wedge \mathbb{k}_2 = \mathbb{k}_1 + 1 \Rightarrow$

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

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{\binom{(\quad)}{j_i=j_{ik}+s-j_{sa}^{ik}}}$$

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

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l - 1)!}{(l_s - l + 1)! \cdot (l - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_s)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}^{(l_s - l + 1)} \\
& \sum_{j_{ik}=l_s + j_{sa}^{ik} - l + 1}^{n_i + j_{sa}^{ik} - l - s + 1} \sum_{(j_i=j_{ik} + s - j_{sa}^{ik})}^{()} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
\end{aligned}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=l}^{()} \sum_{j_s=j_{sa}^{ik}+1}^{()} \sum_{j_{ik}=j_{sa}^{ik}-D}^{l_s+l} \sum_{j_{ik}=j_{sa}^{ik}}^{()} \sum_{n_i=n+l-k}^n \sum_{n_{is}=n+l-k-j_s+1}^{()} \frac{(n_i + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l \leq D - n + 1 \wedge$$

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

$$j_{ik} + s - j_s \leq j_i \leq n \wedge$$

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

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k \geq 0 \wedge$$

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

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=2)}^{(l_i+n-D-s)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{(i=j_{ik}-j_{sa}^{ik})}^{(n_i-j_s)}$$

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

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

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

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

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

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

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

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)}$$

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$$\begin{aligned}
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_i+j_{sa}^{ik}-l-s+1} \binom{(\quad)}{j_i=j_{ik}+s-j_{sa}^{ik}} \\
 & \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_{k_2}}^{(n_{ik}+j_{ik}-j_i-l_{k_1})} \\
 & \frac{\binom{n_i-1}{j_s-2} \binom{n_i-n_{is}-1}{(n_i-n_{is}-j_s+1)!}}{\binom{n_{is}-n_{ik}-1}{(j_{ik}-j_s-1)!} \binom{n_{is}+j_s-n_{ik}-j_{ik}}{(n_{is}+j_s-n_{ik}-j_{ik})!}} \\
 & \frac{\binom{n_s-1}{j_i-1} \binom{n_{ik}+j_{ik}-n_s-j_i}{(n_{ik}+j_{ik}-n_s-j_i)!}}{\binom{n_s-1}{(n_s-j_i-n-1)!} \cdot (n-j_i)!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_{ik}-l_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{j_s=l_i+n-D-s+1}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \binom{(\quad)}{j_i=j_{ik}+s-j_{sa}^{ik}} \\
 & \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_{k_2}}^{(\quad)}
 \end{aligned}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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

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

$$D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

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

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

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

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

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

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

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

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

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

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

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot$$

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

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

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

$$\frac{(l_s - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot$$

$$\sum_{k=l}^{l+1} \sum_{(j_s=2)}$$

$$(l_{ik} + s - l - j_{sa}^{ik} + 1)$$

$$\sum_{k=j_i + j_{sa}^{ik} - s} \sum_{(j_i = l_s + s - l + 1)}$$

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

$$\sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - k_2)}$$

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

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot$$

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

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

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

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

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

$$\sum_{j_{ik}=j_i+j_{ik}^s}^{(l_s+D)} \sum_{(j_i=l_{ik})}^{(j_{sa}^{ik})}$$

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

$$\sum_{n_{ik}=n_{is}-j_{ik}-\mathbb{k}_1} \sum_{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i + j_s - j_{sa}^{ik} - j_{ik} - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(l_i - n_{ik} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n_i + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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

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

$$D \geq n < n \wedge l \neq 1 \wedge l_s \leq n - 1 \wedge$$

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

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

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

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

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

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

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

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

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

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

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

$$\sum_{n_i=n+l_{ik}}^n \sum_{(n_i+j_s+1)}^{(n_i+j_s+1)}$$

$$\sum_{n_{is}+j_s-j_{ik}}^{(n_{ik}+j_{ik}-j_{ik})} \sum_{(n-j_i+1)}^{(n-j_i+1)}$$

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

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

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

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

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

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

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

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

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$$\begin{aligned}
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_s - j_{ik})!} \cdot \\
 & \frac{(n_s - j_i - n - j_{ik} - 1)!}{(n_s - j_i - n - j_{ik} - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(l_{ik} + j_{sa}^{ik} - j_{ik} - j_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \\
 & \sum_{k=l} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{()} \\
 & \sum_{j_{ik} = l_{ik} + n - D}^{l_s + j_{sa}^{ik} - l} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{()} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{()} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}
 \end{aligned}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

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

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

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

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

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_{ik} + n - D - j_{sa}^{ik})} \sum_{(j_s=2)} \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_s - l)!}{(D + j_s - n - l_i)! \cdot (j_i - l_i)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{j_s=j_s+l-k}^{(j_s+l-k-j_{sa}^{ik}+1)} \sum_{l_{ik}=l-k+1}^{(l_{ik}+1)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(j_i=j_{ik}+s-j_{sa}^{ik})} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

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

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

$$\sum_{j_{ik} = j_s + j_{sa}^{ik} - 1} \sum_{(j_i = j_s + s - j_{sa}^{ik})}$$

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

$$\sum_{n_{ik} = n_{is} + l_{ik} - l_{k_1}} \sum_{(j_i = l_{k_2})}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - l_{k_1} - s - l_{k_2} - j_{sa}^s)!}{(n_i - n_{ik} - l_{k_1} - l_{k_2})! \cdot (n_i + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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

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

$$D \geq n < n \wedge l \neq 0 \wedge l_s \leq D - n + 1 \wedge$$

$$D - l_s + s - l_{ik} - 1 \leq l_i + 1 \wedge l \leq l_i - 1 \wedge$$

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

$$j_s + s - j_{sa}^{ik} \leq j_i \leq n$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l_{k_1} \wedge l_{k_2} - j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D - j_{sa}^{ik} - l_{k_1} < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = l_{k_2} \geq 0 \wedge$$

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

$$s: \{j_{sa}^s, l_{k_1}, j_{sa}^{ik}, l_{k_2}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + l_{k_1} \wedge$$

$$l_{k_2}: z = 2 \wedge l_{k_2} = l_{k_1} + l_{k_2} \Rightarrow$$

$$\begin{aligned}
 f_{z^S} S_{j_s, j_{ik}, j_i} &= \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_i-l+1)} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{is}+j_s-j_{ik}}^{(n_{ik}+j_{ik}-i-k_2)} \\
 &\sum_{n_{ik}=n+k_2-1}^{(n_s-n-j_i+1)} \\
 &\frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \cdot \\
 &\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{ik}+j_s-n_{ik}-j_{ik})!} \cdot \\
 &\frac{(n_i-n_s-1)!}{(n_{ik}+j_{ik}-n_s-j_i)!} \cdot \\
 &\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 &\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 &\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 &\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \cdot \\
 &\sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
 &\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$

$D + l_s + s - n - l_i + 1 \leq l \leq i \wedge l - 1 \wedge$

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

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

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

$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$

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

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

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

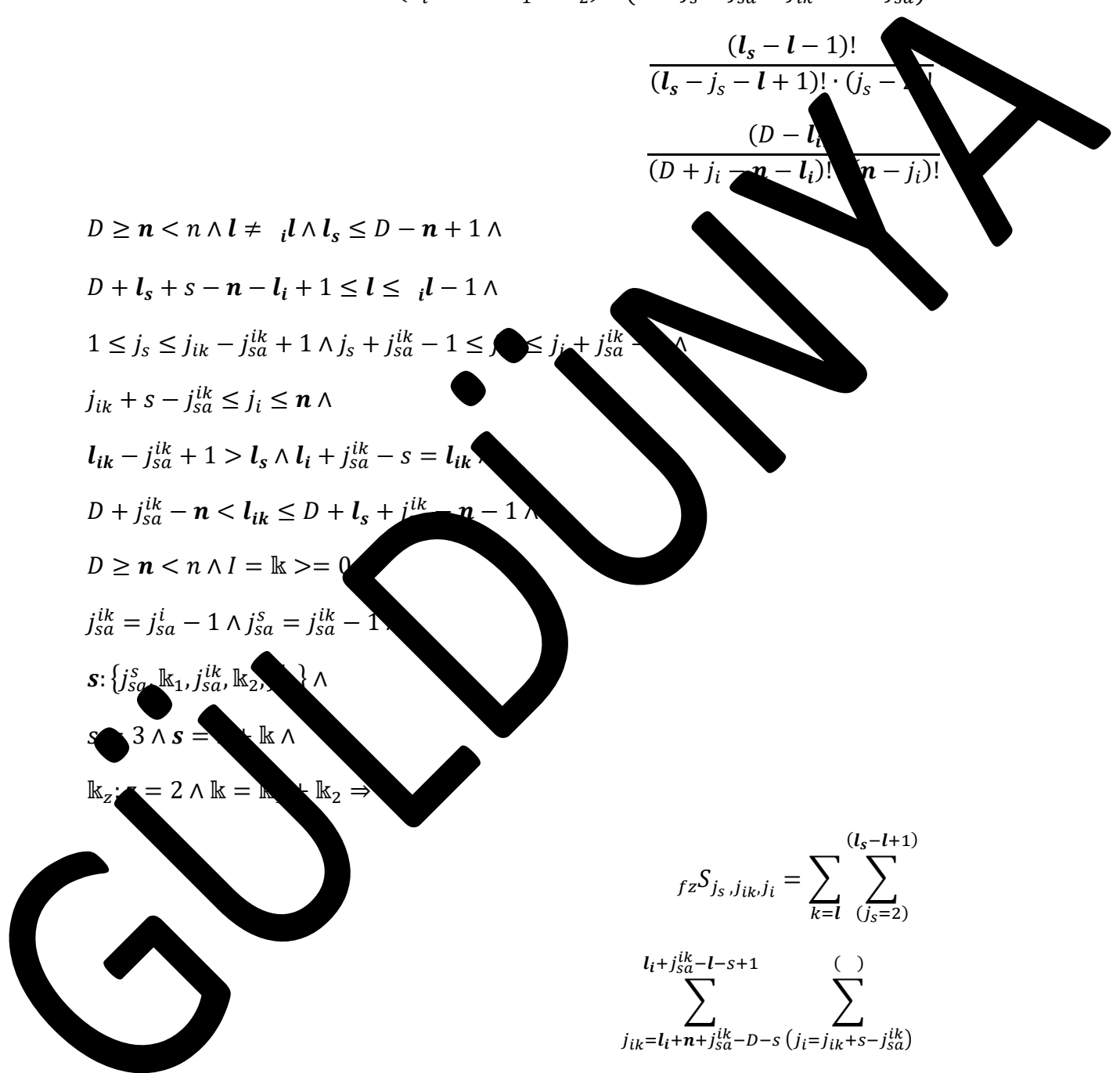
$s = 3 \wedge s = \mathbb{k}_1 + \mathbb{k}_2 \wedge$

$\mathbb{k}_z: \mathbb{k}_z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

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

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-l-s+1}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{\binom{()}{j_i=j_{ik}+s-j_{sa}^{ik}}}$$

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



$$\begin{aligned}
& \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} + 1)!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
& \sum_{j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=\mathbf{n}_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$

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

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq i - 1 \wedge$$

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

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

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

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

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz \mathcal{S}_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}$$

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

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

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

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot$$

$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=0}^{l_s - l + 1} \sum_{n_i = n + k}^{n_i = l_{ik} + n - D - j_{sa}^{ik}} \binom{l_s - l + 1}{k} \binom{D - l_i}{n_i - n - k} \\
& \sum_{j_{ik} = j_{ik} + j_{sa}^{ik} - 1}^{j_{ik} = j_{ik} + j_{sa}^{ik} - 1} \binom{D - l_i}{j_{ik} + j_{sa}^{ik} - 1} \binom{D - l_i}{n_i - n - k} \\
& \sum_{n_i = n + k}^{n_i = n + k} \sum_{n_i = n + k - j_s + 1}^{n_i = n + k - j_s + 1} \binom{n_i - j_s + 1}{n_i - n + k} \binom{n_i - j_s + 1}{n_i - n + k - j_s + 1} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1}^{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \sum_{n_s = n_{ik} + j_{ik} - j_i - k_2}^{n_s = n_{ik} + j_{ik} - j_i - k_2} \binom{D - l_i}{n_{ik} + j_{ik} - j_i - k_2} \\
& \frac{(n_i - n - k_1 - k_2)! \cdot (j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D - n < l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq i - 1 \wedge$$

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

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

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

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

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

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

$$\sum_{j_{ik}=l_{ik}+n}^{l+1} \sum_{j_i=j_{ik}+s-j_{sa}^{ik}}$$

$$\sum_{n_{ik}+k}^{n_{ik}+k} \sum_{n_{is}=n+k-j_s+1}^{n_{is}+k}$$

$$\sum_{n_{ik}=k_2-j_{ik}+1}^{n_{ik}+j_{ik}-j_i-k_2} \sum_{(n_s=n-j_i+1)}$$

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

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

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

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

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

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

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

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{()} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

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

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_k}^{()} \sum_{(n_{ik}=n_{is}+j_s-j_{ik}-l_k)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - l_k - l_s - j_{sa}^s)!}{(n_i - n - l_k - l_s - j_{sa}^{ik} - j_{sa}^s)! \cdot (n_{is} + j_s - j_{ik} - l_k - j_{sa}^s)!}$$

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

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

$$((D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

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

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

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

$$l_i \leq l_s - n) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D + s - n \wedge$$

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

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

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

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

$$l_i - s + 1 > l_s \wedge$$

$$l_i \leq D + s - n) \wedge$$

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s}^{j_i} = \sum_{k=l}^{j_s} \sum_{j_s}^{j_{sa}^{ik+1}} \sum_{j_s}^{j_{sa}^{ik-s} (l_s+s-l)} \sum_{j_{ik}-j_s}^{j_{ik}-j_s} \sum_{n_i=n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}^{(l_s - l + 1)} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}-l+1} \sum_{(j_{i_s+s-l+1})}^{(l_i-l+1)} \\
 & \sum_{n+l_k}^n \sum_{(n_{is}=n_{i_s}+1)}^{(n_{i_s}+1)} \\
 & \sum_{n_{ik}+k_2-j_{ik}}^{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}+j_{ik}-j_i-l_{ik})}^{(n_{ik}+j_{ik}-j_i-l_{ik})} \\
 & \frac{(n_{i_s} - n_{i_s} - 1)!}{(n_{i_s} - 2)! \cdot (n_{i_s} - j_s + 1)!} \cdot \frac{(n_{i_s} - n_{i_s} - 1)!}{(n_{i_s} - j_s - 1)! \cdot (n_{i_s} + j_s - n_{i_k} - j_{ik})!} \\
 & \frac{(n_{i_k} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{i_k} + j_{ik} - n_s - j_i)!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
 & \sum_{k=l} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}
 \end{aligned}$$

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

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

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_i-j_{\mathbb{k}_2})}^{(\)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - j_s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s - j_{sa}^{ik} - j_{ik} - j_{sa}^s)!}$$

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

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

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

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

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

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

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l = i \wedge l_i = D + s - n \wedge$$

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

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n)$$

$$(D > n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

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

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

$$l_i - s + 1 > l_s \wedge$$

$$l_i \leq D + s - n) \wedge$$

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik})} \frac{(l_s+i_{ik}-1)! \cdot (l_i-1)!}{j_{ik}^{l_s+i_{ik}+1} (j_i=j_{ik}+s-1)} \sum_{n_i=n+l}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \frac{(n_{ik}-n_s-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} +$$

$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{ik}^{ik})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}} \sum_{(n_{is}+j_{ik}-l_{ik_2})} \\
 & \sum_{n_{ik}=n+k_2-1} \sum_{(n_s=n-j_i+1)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{is} - n_s - 1)!}{(n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)}
 \end{aligned}$$

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

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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

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

$$(D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1)$$

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

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

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

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l \neq i \wedge l_i \leq D - n + 1)$$

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

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1)$$

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

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

$$l_i - s + 1 \leq l_s \wedge$$

$$l_i \leq D + s - n) \wedge$$

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

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

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

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

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz \mathcal{S}_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

$$\sum_{n_i=n}^n \sum_{(n_i=n+j_s+1)}^{(n+j_s+1)}$$

$$\sum_{n_{is}+j_s}^{n_{ik}+j_{ik}} \sum_{(n_{ik}+j_{ik})}^{(n_{ik}+j_{ik})}$$

$$\sum_{(j_{ik}+1)}^{(n_{ik}+j_{ik})} \sum_{(n-j_i+1)}^{(n-j_i+1)}$$

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

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

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

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

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

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

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

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

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$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

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

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_i-j_{ik}-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - j_s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - j_{sa}^{is})!} \cdot \frac{(l_s - l - 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - n - l)!}{(D + j_s - n - l)! \cdot (n - j_i)!}$$

$$((D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1) \wedge$$

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

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

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

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

$$((D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1) \wedge$$

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

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

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

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

$$n - l_s - l \wedge I = \mathbb{k} \geq 0 \wedge$$

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

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

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

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$\begin{aligned}
 f_z S_{j_s, j_{ik}, j_i} &= \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \\
 &\sum_{j_{ik}=l_{ik}+n-D}^{j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)} \\
 &\sum_{n_i=n+1}^n \sum_{(n_i+j_s+1)}^{(n+j_s+1)} \\
 &\sum_{i_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}+j_{ik}-j_{ik})}^{(n_{ik}+j_{ik}-j_{ik})} \\
 &\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 &\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 &\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 &\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 &\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 &\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 &\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-l_{k_1}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_1})} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s+1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_s-n_s)!}{(j_i-l_{k_1}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \cdot \\
 & \frac{(n_i-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s-l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \cdot \\
 & \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{(j_i=l_i+n-D)}^{(\quad)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

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

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

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

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

$D + s - n < l_i \leq D + l_s + s - n - 1)$

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

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

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

$l_i - s + 1 > l_s \wedge$

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

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

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

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

$s = 3 \wedge j_{sa}^s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$f_z S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\begin{aligned}
& \sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_1})} \\
& \frac{(n_i-1)}{(j_s-2) \cdot (n_i-n_{is}+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_i) \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \\
& \frac{(n_s-n_s)}{(j_i-1)! \cdot (l_{ik}+j_{ik}-n_s-j_i)!} \\
& \frac{(n_i-1)!}{(n_s) \cdot (j_i-n-1)! \cdot (n-j_i)!} \\
& \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
& \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_i+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
& \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} +
\end{aligned}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

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

$$\frac{\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} (n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

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

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

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

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

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

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

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

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

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

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

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

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

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

$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

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

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

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

$$l_i - s + 1 > l_s \wedge$$

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

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

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

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

$$s \cdot 3 \wedge s = s \cdot \mathbb{k} \wedge$$

$$\mathbb{k}_2 \cdot 2 \wedge \mathbb{k} = \mathbb{k}_1 \cdot \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

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

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)}$$

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

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

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

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

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

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

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

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

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

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)}$$

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

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$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - 1)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - j_s - 1)! \cdot (j_{ik} - j_s - l_s + 1)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_{ik} - l_{ik} - s)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_i + n - D - s + 1)} \\
& \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})} \\
& \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - k_2)}^{()} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

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

$$D + l_s + s - n - l_i + 1 \leq l \leq l - 1 \wedge$$

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

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

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

$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq l - 1 \wedge$$

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

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

$$l_i - s + 1 > l_s \wedge$$

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

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

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

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

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

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

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

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - 1)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - j_s - 1)! \cdot (j_{ik} - j_s - l_s - 1)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_{ik} - l_{ik} - s)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_i + n - D - s + 1)} \\
& \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{()} \\
& \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - k_2)}^{()} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l = j_i \wedge l_s \leq D - n + 1 \wedge$$

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

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

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

$$l_i \leq D + s - n \wedge$$

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 & \sum_{k=i}^{(\cdot)} \sum_{l \binom{(\cdot)}{j_s=j_{ik}, j_i} \\
 & \sum_{j_{ik}=j_{sa}^{lk}}^{(l_i - i l + 1)} \sum_{(j_i=s)} \\
 & \sum_{l_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(l_i + j_{sa}^{ik} - j_i - l_{ik})! \cdot (j_i - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -
 \end{aligned}$$

$$\sum_{k=i}^{(\cdot)} \sum_{l \binom{(\cdot)}{j_s=1}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j_i=s)}^{()}$$

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

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(D - l_i)}{(D + s - n - \mathbb{k}_1 - \mathbb{k}_2)! (n - s)!}$$

$$D \geq n < n \wedge l = i \wedge l_s \leq D - n + 1 \wedge$$

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

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

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

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

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2$$

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

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_i - i l + 1)} \sum_{(j_i=s)}$$

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

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

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

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

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

$$\sum_{k=0}^{j_{sa}^{ik}} \binom{()}{k}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \binom{()}{j_{ik}-j_{sa}^{ik}}$$

$$\sum_{n_i=0}^n \sum_{k=0}^{n_i} \binom{()}{k} \binom{()}{n_i-k} \binom{()}{n_i-k-k_1+1} \binom{()}{n_s=n_{ik}+j_{ik}-j_i-k_2}$$

$$\frac{(n_i - n - k_1 - k_2 + j_{sa}^{ik} - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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

$$D > n < n \wedge l_i \wedge l_s \wedge D - n + 1 \wedge$$

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

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

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

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

$$D > n < n \wedge I = k \geq 0 \wedge$$

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

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fzS_{j_s, j_{ik}, j_i} = \sum_{k=1}^i \sum_{l=1}^{(j_s)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}-i^{l+1}} \sum_{(j_i=j_{ik}+s-1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_{k_2}}^{n_{ik}+j_{ik}-j_i-l_{k_2}}$$

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

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

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

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

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

$$\sum_{k=1}^i \sum_{l=1}^{(j_s)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j_i=s)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}-l_{k_1}+1)}^{(j_i)} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_{k_2}}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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

$$(D \geq n < n \wedge l = i \wedge l_s \leq D - n + 1 \wedge$$

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

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

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

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l = l \wedge l_i \leq D + s - n \wedge$$

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

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n) \vee$$

$$(D \geq n < n \wedge l = l \wedge l_s \leq D - n + 1 \wedge$$

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

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

$$l_i - s + 1 > l_s \wedge$$

$$l_i \leq D + s - n) \wedge$$

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

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

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

$$s = 3 \wedge s = s + \mathbb{k}_1$$

$$\mathbb{k}_2 = 2 \wedge \mathbb{k}_2 = \mathbb{k}_1 + \mathbb{k}_1 \Rightarrow$$

$$f_z^S j_s, j_{ik}, j_i = \sum_{k=1}^n \sum_{l=1}^{(j_s)} \binom{(\cdot)}{l}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

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

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

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

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

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

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

$$\sum_{(j_s=1)}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{()} \sum_{(j_i=s)}$$

$$\sum_{n_i=l_i+\mathbb{k}}^{()} \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}$$

$$\frac{(n_i + j_s - j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - j_i - j_{sa}^{ik} - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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

$$D \geq n - n \wedge l_s > D - j_i + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

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

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

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

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

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

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

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$f_z S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_{ik}+s-l-j_{sa}^{ik}+1)}$$

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

$$\sum_{(n_{is}+j_s-j_{ik}+1)}^{\mathbb{k}_1} \sum_{(n_{ik}+j_{ik}-j_i)}^{\mathbb{k}_2}$$

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

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

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

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

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

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

$$\sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=l_{ik}+s-l-j_{sa}^{ik}+2)}^{(l_i-l+1)}$$

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

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}$$

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

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_s - j_{ik})!}$$

$$\frac{(n_s - j_i - n - l - 1)!}{(n_s - j_i - n - l - 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_s - l_{ik} - s)!}{(j_{ik} + l_{k_1} - j_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

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

$$\sum_{k=l}^{\binom{)}{}} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{\binom{)}{}}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{lk}-s} \sum_{(j_i=l_i+n-D)}^{(l_{ik}+s-l-j_{sa}^{lk}+1)}$$

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

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{\binom{)}{}}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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

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

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

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

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

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

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

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

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

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{zS} j_i = \sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}$$

$$\sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-1}^{j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)}$$

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

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

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

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k_1=0}^{l_i - l} \sum_{k_2=0}^{l_i - l - k_1} \sum_{k_3=0}^{l_i - l - k_1 - k_2} \sum_{k_4=0}^{l_i - l - k_1 - k_2 - k_3} \sum_{k_5=0}^{l_i - l - k_1 - k_2 - k_3 - k_4} \sum_{k_6=0}^{l_i - l - k_1 - k_2 - k_3 - k_4 - k_5} \\
& \sum_{n_i=n+k_1}^{n_i - j_{ik} - k_1} \sum_{n_{is}=n+k_1 - j_s + 1}^{n_{is} - j_s + 1} \sum_{n_{ik}=n+k_2 - j_{ik} + 1}^{n_{ik} + j_{ik} - j_i - k_2} \sum_{n_s=n - j_i + 1}^{n_s - j_i + 1} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot
\end{aligned}$$

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

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{(j_i=l_i+n-p)}^{(l_s+s-l)}$$

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

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-1}^{()} \sum_{(n_{is}=n_{ik}+j_{ik}-j_i)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - \dots - k_1 - \dots - j_{sa}^s)!}{(n_i - n - \dots - k_1 - k_2)! \cdot (n_i - j_s + j_{sa}^{ik} - \dots - j_{sa}^s)!}$$

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

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

$D \geq n < n \wedge l_s > D - n - 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq \dots + j_{sa}^{ik} - s \wedge$

$j_{ik} + \dots - j_{sa}^{ik} \leq j_i \leq \dots \wedge$

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

$D \geq \dots < n \wedge I = k_1 = 0 \wedge$

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

$s: \{j_s, k_1, j_{sa}^{ik}, \dots\}$

$s = 3 \wedge s = \dots + k \wedge$

$k; z = 2, k = k_1 + k_2 \Rightarrow$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_i-1)!(n_{is}+j_{ik}-n_{ik}-j_{ik})!} \\
 & \frac{(n_i-1)!}{(j_i-1)!(n_{ik}+j_{ik}-n_s-j_i)!} \cdot \frac{(n_s-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_i+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - 1)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_i - s)!}{(j_{ik} + l_i - l - 1)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{()} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{()} \\
 & \sum_{j_{ik} = l_i + n + j_{sa}^{ik} - D - s}^{l_{ik} - l + 1} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{()} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^n \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{(n_i - j_s + 1)} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

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

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

$$D \geq n < n \wedge l = k \geq 0 \wedge$$

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

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned} &= \sum_{j_i=l_i+1}^{n_i} \sum_{j_s=l_s+1}^{n_i+l_s-l_{ik}} \\ &= \sum_{j_i=l_i+1}^{n_i+l_i+n-D-s-1} \sum_{j_s=l_s+1}^{n_i+l_s-l_{ik}} \\ &= \sum_{j_{ik}=n+j_{sa}^{ik}-D-1}^{n} \sum_{j_i=l_i+n-D}^{(n_i-j_s+1)} \\ &= \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\ &= \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\ &= \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &= \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\ &= \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\ &= \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\ &= \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ &= \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \end{aligned}$$

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

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

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

$$\sum_{n+l_k}^n \sum_{(n_{is}=n_{i+1}+1)}$$

$$\sum_{n_{ik}+l_{k_2}-j_{ik}}^{n_{is}+j_s-j_{ik}-1} \sum_{(j_i=j_{ik}+1)}$$

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

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

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

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

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

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

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

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

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

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_1)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l_i - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_s \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2\} \wedge$$

$$s = 3 \wedge s = \mathbb{k}_1 + \mathbb{k}_2 \wedge$$

$$\mathbb{k}_2 = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_i+n-D-s)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 1)!}{(j_s - l_s + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (l_i + j_{sa} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + 1 - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)} \\
& \sum_{j_{ik}=j_s+l_{ik}-l_s}^{(l_i-l+1)} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
\end{aligned}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=0}^{(l_{ik} - l - j_{sa}^{ik} + 2)} \sum_{j=0}^{D-s+1}$$

$$\sum_{j_i = j_s + l_{ik} - l_s}^{()} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}$$

$$\sum_{n_i = n + k}^n \sum_{(n_i = n + k - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - k_2)}^{()}$$

$$\frac{(l_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$n_s \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S j_s, j_{ik}, j_i = \sum_{k=l} \sum_{j_s=l+n-D}^{+n-D-s} \sum_{j_{ik}=j_s+l} \sum_{j_i=l+n-D}^{+n-D-s} \sum_{j_s=1}^{j_s+1} \sum_{n_{is}=n+\mathbb{k}-j_s+1} \sum_{n_{ik}=n_{is}-j_{ik}-\mathbb{k}_1}^{n_{ik}+j_{ik}-j_i-\mathbb{k}_2} \sum_{n_{ik}=1}^{n_{ik}+j_{ik}-j_i-\mathbb{k}_2} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

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$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_s+l_{ik}-l_s}^{(l_i-l+1)} \sum_{(j_i=j_{ik}+s-j_{ik}^k)}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}}^{(n_i+j_{ik}-j_i-k_2)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{(n_s-n-j_i+1)} \\
 & \frac{(n_i-n_{ik}-1)!}{(j_s-2)! \cdot (n_{ik}+j_s+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{ik}+j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_i-n_s-1)!}{(n_{ik}+j_{ik}-n_s-j_i)!} \cdot \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} - \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_s+l_{ik}-l_s}^{()} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i \leq j_i + j_{sa}^{ik} \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik}$

$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$

$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$

$s = 3 \wedge s = s + 1 \wedge$

$\mathbb{k} : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + 1 \Rightarrow$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$



$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - 1)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l - 1)!}{(l_s - l + 1)! \cdot (l - 2)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_i - s)!}{(j_{ik} + l_i - l - s)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{()} \sum_{(j_s = j_{ik} + l_s - l_{ik})} \\
 & \sum_{j_{ik} = j_i + j_{sa}^{ik} - s}^{(l_{ik} + s - l - j_{sa}^{ik} + 1)} \sum_{(j_i = l_i + n - D)} \\
 & \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - k_2)}^{()} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{S_{j_s, l_i}} = \sum_{k=l}^{()} (j_s = j_{ik} + l_s - l_{ik})$$

$$j_{ik} = \sum_{n+j_{sa}^{ik}-D-1}^{l_s+j_{sa}^{ik}} (l_i-l+1) \sum_{(j_i=l_i+n-D)}^{(n_i-j_s+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}$$

$$\sum_{(j_{ik}=j_i+j_{sa}^{ik}-l_{ik}-s-l)}$$

$$\sum_{(n+l_k)} \sum_{(n+l_k-j_s+1)}$$

$$\sum_{(n_{ik}=n_{is}-j_{ik}-k_1)} \sum_{(n_{ik}+j_{ik}-j_i-k_2)}$$

$$\frac{(n_i + j_{sa}^{ik} - j_{ik} - k_1 - k_2 - j_{sa}^s)!}{(n_i + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_i + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \wedge l = k \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + k \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{(l_i-l+1)} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+l_s}^n \sum_{(n+l_s-j_s+1)}^{(n+l_s-j_s+1)}$$

$$\sum_{i_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}+j_{ik}-n_{is})}^{(n_{ik}+j_{ik}-n_{is})}$$

$$\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{()} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_1)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l_i - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2\} \wedge$$

$$s = 3 \wedge s = \mathbb{k}_1 + \mathbb{k}_2 \wedge$$

$$\mathbb{k}_2 = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - n - 1)! \cdot (n - j_i)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l_i - 1)!}{(j_s - l_i - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{(l_s-l+1)} \\
& \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_i-l+1)} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{j_s=2}^{(j_i - j_{ik} - 1)} \sum_{j_{sa}^{ik}=j_s+1}^{(j_{ik} - j_s - j_{sa}^{ik} + 1)} \sum_{l_i=l_s+l-1}^{(l_s+s-l)} \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(j_i+l_{ik}-l_i)} \sum_{j_i=l_i+n-D}^{(j_i+l_{ik}-l_i)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})} \\
& \frac{(j_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$j_i \geq n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=1}^{l_s} \sum_{(j_s = n-D)}^{(k - j_{sa}^{ik} + 1)}$$

$$\sum_{l_s + j_{sa}^i - l}^{l_s + j_{sa}^i - 1} \sum_{(j_{sa}^{ik} - D - j_{sa}^i + j_{ik} + l_i - l_{ik})}^{(j_{sa}^{ik} - D - j_{sa}^i + j_{ik} + l_i - l_{ik})}$$

$$\sum_{n_i = \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - \mathbb{k} + j_{sa}^{ik} + 1)}$$

$$\sum_{n_{ik} = \mathbb{k}_2 - j_{ik} + 1}^{n_{is} - j_{ik} - \mathbb{k}_1} \sum_{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}$$

$$\sum_{(n_s = n - j_i + 1)}^{(n_{ik} - \mathbb{k}_2 - j_{ik} + 1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-l-s+1}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-1}^{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}+j_{ik}-n_{is}-k_2)}^{(n_{is}+j_{ik}-n_{is}-k_2)} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_i - n_s - 1)!}{(n_{ik} + j_{ik} - n_s - j_i)!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \\
 & \sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{lk}-D-s}^{l_s+j_{sa}^{lk}-l} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$

$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$

$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$

$s = 3 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_2: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-l-s+1}^{()} \sum_{(j_i=j_{ik}+l_i-l_{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - l_s + 1)!}$$

$$\frac{(n - l_i)!}{(n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=0}^{n-l_i} \sum_{i_s=l_i+n-D-s+1}^{n-l_i-k}$$

$$\sum_{i_k=j_s+j_{sa}^{ik}-1}^{l_{sa}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-l_{ik}}^{(j_{ik}-j_s-l_{ik})}$$

$$\sum_{n+l}^{(n_i-j_s+1)} \sum_{(n+l-k-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}-j_{ik}-k_1}^{(n_{ik}+j_{ik}-j_i-k_2)}$$

$$\frac{(n_i + j_s - j_{sa}^{ik} - j_{ik} - k_1 - k_2 - j_{sa}^s)!}{(k_1 - 1)! \cdot (n_i + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s = D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n$$

$$l_{ik} - l_s + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k \geq 0 \wedge$$

$$j_{sa}^{ik} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned}
 f_Z^{\mathcal{S}_{j_s, j_{ik}, j_i}} &= \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)} \\
 &\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=l_{ik}+n+s-D-j_{ik}^{ik})} \\
 &\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{is}+j_s-j_{ik}^{ik}-(n_{is}+j_{ik}^{ik}-l_{k_2})} \\
 &\sum_{n_{ik}=n+l_{k_2}-j_{ik}^{ik}-1}^{(n_s-n-j_i+1)} \\
 &\frac{(n_i-n_{ik}^{ik}-1)!}{(j_s-2)! \cdot (n_{is}-n_{ik}^{ik}-j_s+1)!} \\
 &\frac{(n_{is}-n_{ik}^{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}^{ik}-j_{ik}^{ik})!} \\
 &\frac{(n_i-n_s-1)!}{(n_i-j_{ik}^{ik}-1)! \cdot (n_{ik}^{ik}+j_{ik}^{ik}-n_s-j_i)!} \\
 &\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
 &\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
 &\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}^{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 &\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 &\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \\
 &\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \sum_{(j_i=l_s+s-l+1)} \\
 &\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\frac{\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} (n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + 1 - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-k_2)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z = j_{ik} j_i = \sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + n - D)}^{(j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = l_{ik} + n - D}^{s + j_{sa}^{ik} - l} \sum_{(j_i = j_{ik} + l_i - l_{ik})}^{()}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\begin{aligned}
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{l_s-l+1} \sum_{j_s=n-D}^{j_s+1} \\
 & \sum_{j_i=l_s+l_{sa}^{ik}-l}^{l_s-l+1} \sum_{j_i=j_{ik}+l_i-l_{ik}}^{j_s+1} \\
 & \sum_{n_{is}=n+l_k-j_s+1}^{n_{is}+k} \sum_{n_{ik}=j_{ik}-j_i-k_1}^{n_{ik}+j_{ik}-j_i-k_2} \\
 & \sum_{n_{ik}=j_{ik}-j_i+1}^{n_{ik}+k} (n_s=n-j_i+1) \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot
 \end{aligned}$$

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$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+l_i-l)}^{(\cdot)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_k} \sum_{(n_{ik}+j_{ik}-j_i-l)}^{(\cdot)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - l_k - l_i - j_{sa}^s)!}{(n_i - n - l_k - l_i - j_{sa}^s)! \cdot (n_{is} + j_{sa}^{ik} - l_k - j_{sa}^s)!}$$

$$\frac{(l_k - l - 1)!}{(l_i - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n \wedge l_i \wedge l_i > 0$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq l_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + j_{sa}^{ik} \leq j_i \leq l_i \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_i \wedge l_i + j_{sa}^{ik} - s = l_i \wedge$$

$$D \geq 3 < n \wedge l = l_k = 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^{il} - 1 \wedge j_{sa}^s = j_{sa}^{il} - 1 \wedge$$

$$s: \{j_{sa}^s, l_{k_1}, j_{sa}^{ik}, l_{k_2}, j_{sa}^{il}\} \wedge$$

$$s = 3 \wedge s = l_s + l_k \wedge$$

$$l = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{(j_s=l_s+n-D)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s+1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_s-n_s)!}{(j_i-l_{k_2}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \cdot \\
 & \frac{(n_s-j_i-n-1)! \cdot (n-j_i)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s-l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - 1)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l - 1)!}{(l_s - l + 1)! \cdot (l - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_{ik} + n - D - j_{sa}^{ik} + 1)} \\
& \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1} \sum_{(j_i = j_{ik} + l_i - l_{ik})}^{()} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f^{z=2} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{(l_i-l+1)} \sum_{k=j_i+l_{ik}-l_i}^{(l_i-l+1)} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1, \dots)}$$

$$\sum_{(j_i=j_i+l_{ik}, \dots)}$$

$$\sum_{(n+l_{ik}, \dots)}$$

$$\sum_{(n_{ik}=n_{is}, \dots)}$$

$$\frac{(n_i + j_s - j_{sa}^{ik} - j_{ik} - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i + j_s - j_{sa}^{ik} - j_{ik} - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)! \cdot (n_i + j_s - j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$D + j_s - s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \geq l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^{\mathcal{S}_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n-l_s-j_s+1}^n \sum_{(n_i=n-l_s-j_s+1)}^{(j_s+1)}$$

$$\sum_{i_{ik}+1}^{n_{is}+j_s-j_{ik}-1} \sum_{(n_{ik}+j_{ik}-j_{is})}^{()}$$

$$\frac{(n_i - n_{is})!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l - \mathbb{k}_1 - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i + j_{sa}^{ik} - 1 \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge$$

$$s = (j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik_2}, j_{sa}^i)$$

$$s = 3 \wedge s = s + \mathbb{k}$$

$$\mathbb{k}_z: z = \mathbb{k} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_{ik}+s-l-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\frac{\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} (n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-k_2)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \\ & \sum_{j_{ik}=l_{ik}+n-D}^{j_{ik}-l+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(\cdot)} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\ & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\ & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\ & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \end{aligned}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=l}^{()} \sum_{j_s=j_{ik}+j_{sa}^{ik}+1}^{()} \sum_{j_{ik}=l_{ik}+n-j_i}^{j_{ik}-l} \sum_{j_i=j_{ik}+l_i-l_{ik}}^{()} \sum_{n_i=n+l_k}^{()} \sum_{n_{is}=n+l_k-j_s+1}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_{k_2}}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_{k_2}}^{()} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq l_i \wedge l_i \leq D - n + 1 \wedge$$

$$1 \leq j_i \leq j_{ik} - j_{sa}^{ik} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_s \leq j_i \leq n \wedge$$

$$-j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{j_i+j_{sa}^{ik}-s} \frac{(l_{ik}+j_{sa}^{ik}-j_{sa}^{ik}+1)}{(j_i-j_{sa}^{ik})}$$

$$\sum_{n_i=n+l_s}^{n_i-j_s} \sum_{n_{is}=n+l_s-j_s+1}^{n_i-l_{ik}} \sum_{n_{ik}=n+l_s-j_s+1}^{n_i-l_{ik}} \sum_{n_s=n+l_s-j_s+1}^{n_s-n_{ik}+1} \sum_{n_s=n+l_s-j_s+1}^{n_s-n_{ik}+1}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(n_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)}$$

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$$\begin{aligned}
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}-l+1} \sum_{(j_i=l_{ik}+s-l-j_{sa}^{ik}+2)}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s+1)!(n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_s-n_{ik}-1)!}{(j_i-1)!(n_{ik}+j_{ik}-n_s-j_i)!} \cdot \frac{(n_s-j_i-n-1)! \cdot (n-j_i)!}{(n-1)!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_i+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \cdot \sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \sum_{(j_i=s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{()} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{()}
 \end{aligned}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{(\cdot)} \sum_{j_{ik} = j_{sa}^{ik} + 1}^{j_i + j_{sa}^{ik} - s} \sum_{(j_i = s + 1)}^{(l_s + s - l)} \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_i + j_{sa}^{ik} - l - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - l - s)!} \cdot$$

$$\frac{(l_i - l)!}{(n - l)! \cdot (n - j_i)!} \cdot$$

$$\sum_{j_s=j_{ik}+l_s-l_{ik}}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{j_i=l_s+s-l+1}^{(l_i-l+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}$$

$$\sum_{j_{ik}=j_i}^{(l_s+s-l)} \sum_{(j_s=s+1)}$$

$$\sum_{n+l}^{(n_i-j_s+1)} \sum_{(n+l-k-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}-j_{ik}-k_1} \sum_{(n_{ik}+j_{ik}-j_i-k_2)}$$

$$\frac{(n_i + j_{sa}^{ik} - j_{ik} - k_1 - k_2 - j_{sa}^s)!}{(k_1 - 1)! \cdot (n + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq l \wedge l_s \leq n - 1 \wedge$$

$$1 \leq j_s < j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} < j_i \leq n$$

$$l_{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s < n \wedge$$

$$l_i \wedge I = k \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + k \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

$$\sum_{n_i=n_{is}+j_s-1}^n \sum_{(n_{ik}+j_{ik}-n_s=j_i)}^{(n-j_s+1)}$$

$$\sum_{(j_{ik}+1)}^{n_{is}+j_s-1} \sum_{(n-j_i+1)}^{(n_{ik}+j_{ik}-n_s)}$$

$$\frac{(n_i - n_{is})!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_1)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_i - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l_i - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s \geq l_i \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge$$

$$s = \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, j_{sa}^i\}$$

$$s = s \wedge s = s + \mathbb{k}$$

$$\mathbb{k}_z: z = \dots \wedge \mathbb{k} = \mathbb{k}_1 + \dots \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\frac{\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} (n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa} - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (l_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + 1 - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-k_2)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_s, j_i} = \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{(l_i-l+1)} \sum_{j_{ik}=j_s+l_{ik}-l_s}^{(l_i-l+1)} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(n_i-j_s+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - l_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=1}^{(l_{ik} - j_{sa}^{ik} + 2)} \sum_{(j_s=2)}^{(j_s)} \sum_{(j_i)}^{(j_i)} \sum_{(j_{ik} + l_{ik} - l_s)}^{(j_i = j_{ik} + s - j_{sa}^{ik})} \sum_{n_i = n + k}^{(n_i - j_s + 1)} \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1}^{(n_s = n_{ik} + j_{ik} - j_i - k_2)} \sum_{(n_i - n - k_1 - k_2)}^{(n_i - n - k_1 - k_2)} \frac{(j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D > n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_i - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = k \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{(j_s=2)}^{(l_s-l)} \sum_{(l_i=l+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{\mathbb{k}_2}-j_{ik}+1}^n \sum_{n_{is}=n_{\mathbb{k}_1}+j_{is}-j_{ik}}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{2! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

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$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j_i=j_{ik+s}-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+l_{k_2}-j_i-l_{k_2})}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - j_s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s - j_{sa}^{ik} - j_{ik} - j_{sa}^{is})!} \cdot \frac{(l_s - l + 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l)!}{(D + j_s - n - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - j_{ik} \leq j_{sa}^{ik} - j_{sa}^{is} - s$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - j_{sa}^{is} = l_{ik} \wedge$

$D + n < l_i \leq l_s + s - n - 1$

$D > n < n \wedge l_{k_1} + l_{k_2} \geq l$

$j_{sa}^{ik} - j_{sa}^{is} - 1 \wedge j_{sa}^{is} - j_{sa}^{ik} - 1$

$\{j_{sa}^{is}, l_{k_1}, j_{sa}^{ik}, l_{k_2}, j_{sa}^{is}\}$

$s = 3 \wedge s = s$

$l_{k_2} \cdot z = z \cdot l_k = l_{k_1} + l_{k_2} \Rightarrow$

$$f_z S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_{ik}+s-l-j_{sa}^{ik}+1)}$$

$$\begin{aligned}
 & \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - j_i - n - l - 1)!}{(n_s - j_i - n - l - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{ik} - l_{ik} - s)!}{(j_{ik} + l_{ik} - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=l} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{()} \\
 & \sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_{ik} - l + 1} \sum_{(j_i = l_{ik} + s - l - j_{sa}^{ik} + 2)}^{(l_i - l + 1)} \\
 & \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - j_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik} - j_{sa}^{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{l=1}^{\infty} \sum_{(j_s = j_{ik} + l_s - l_{ik})} \\
& \sum_{k=j_i + j_{sa}^{ik} - s}^{\infty} \sum_{(j_i = l_i + n - D)}^{(l_{ik} + s - l - j_{sa}^{ik} + 1)} \\
& \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - k_2)}^{(\quad)} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \Rightarrow 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} \sum_{j_s=j_{ik}+l_s-l_{ik}}^{n_i-j_s+1} \sum_{j_i=l_i+n-D}^{n_i-j_s+1} \frac{(n_i-j_s+1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot \frac{(n_{ik}-n_s-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \cdot \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_{i+1}=j_{i+1}+s-l+1)}^{(l_i-l+1)}$$

$$\sum_{n+l_k}^n \sum_{(n_{is}=n_{i+1}+1)}^{(n_{i+1}+1)}$$

$$\sum_{n_{ik}+l_{k2}-j_{ik}}^{n_{is}+j_s-j_{ik}-1} \sum_{(j_{i+1}=j_{i+1}+1)}^{(n_{ik}+j_{ik}-j_i-l_{k2})}$$

$$\frac{(n_{i+1}-1)!}{(j_i-2)! \cdot (n_{is}-j_s+1)!}$$

$$\frac{(n_{i+1}-n_{ik}-1)!}{(j_i-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_s-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!}$$

$$\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!}$$

$$\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!}$$

$$\frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s \geq l_i \wedge$$

$$D + s - n < l_i \leq D + l_s - j_s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1 \wedge$$

$$s = \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, j_{sa}^i\} \wedge$$

$$s = ? \wedge s = s + \mathbb{k}$$

$$\mathbb{k}_z: z = \dots \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - n - 1)! \cdot (n - j_i)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa} - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (l_i + j_{sa} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
 \end{aligned}$$

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$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{j_{ik}=l_{ik}}^{l_{ik}} \sum_{j_i=l_{ik}+j_{sa}^{ik}-D-s}^{(j_i+l_{ik})} \sum_{j_s=l_{ik}+j_{sa}^{ik}-D-s}^{(j_s+l_{ik})}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{(n_s)}$$

$$\frac{(j_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$n - l \neq i \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{j_s} \sum_{(j_s=j_{ik})}^{l_{ik}} \frac{(l_i - l + 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\begin{aligned}
 & \sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \frac{(n_{is}+j_s-j_{ik}-1)! \cdot (n_i+j_{ik}-j_i-k_2)!}{(n_{ik}=n+k_2-j_s+1)! \cdot (n_s=n-j_i+1)!} \\
 & \frac{(n_i-n_{ik}-1)!}{(j_s-2)! \cdot (n_i-n_{ik}-j_s+1)!} \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_s-n-1)!}{(n_s-j_i-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!}
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$

$D + s - n < l_i \leq D + l_s + s - n - 1$

$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$

$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$

$s = 3 \wedge s = s + 1$

$\mathbb{k}: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + 1 \Rightarrow$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{(l_i-l+1)} \sum_{(j_i=l_i+n-D)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l - 1)!}{(l_s - l + 1)! \cdot (l - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_i - s)!}{(j_{ik} + l_i - l_s - 1)! \cdot (j_i + j_{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=l}^{(l_{ik} - l - j_{sa}^{ik} + 2)} \sum_{(j_s = l_i + n - D - s + 1)} \\
& \sum_{j_{ik} = j_s + l_{ik} - l_s}^{(l_i - l + 1)} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})} \\
& \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
\end{aligned}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{i=l_i+n-l-s+1}^{(l_{ik} - j_{sa}^{ik} + 2)} \sum_{j_{ik}=j_s+l_{ik}-j_i}^{j_{ik}=j_{ik}+s-j_{sa}^{ik}} \sum_{n_i+l_k}^{n_i+l_k} \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_{is}=n+l_k-j_s+1)} \sum_{=n_{is}+j_{ik}-l_{k_1}}^{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq l_i \wedge l \leq D - n + 1 \wedge$$

$$1 \leq j_i < j_{ik} - j_{sa}^{ik} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_s \leq j_i \leq n \wedge$$

$$j_{ik} - 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = l_k \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=2)}^{(l_i+n-D-s)}$$

$$\sum_{j_{ik}=j_s}^{(l_i-l+1)} \sum_{(j_i=n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+k_1}^{(n_i)} \sum_{(n_i=n+k_2-j_s+1)}^{(n_i)}$$

$$\sum_{n_i=n+k_2-j_{ik}}^{(n_i)} \sum_{(n_s=n-j_i+1)}^{(n_i)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)}$$

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$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{(n_{ik}+j_{ik}-j_i-l_{k_1})}$$

$$\frac{(n_i - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_s - n_s - 1)!}{(j_i - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s - j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_i + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{()}$$

GÜLDENWA

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq i - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z \mathcal{S}_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{(\cdot)}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_{ik} - l + 1} \sum_{(j_i = l_i + n - D)}^{(l_i - l + 1)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - 1)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_i + j_{sa}^{ik} - j_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik} - j_i + j_{sa}^{ik} - s)!} \cdot$$

$$\frac{(D - l_i)!}{(n - l_i - 1)! \cdot (n - j_i)!} \cdot$$

$$\sum_{s=1}^n \sum_{j_s=j_{ik}+l_s-l_{ik}}$$

$$(l_{ik}+s-l-j_{sa}^{ik}+1)$$

$$\sum_{k=j_i+j_{sa}^{ik}-s} \sum_{j_i=l_i+n-D}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-k_2)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq i - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = k \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned} &= \sum_{j_i=l_i}^{n} \sum_{j_{sa}^{ik}=l_{sa}^{ik}}^{n} \sum_{j_{sa}^s=l_{sa}^s}^{n} \sum_{j_{sa}^i=l_{sa}^i}^{n} \sum_{j_{ik}=l_{ik}}^{n} \sum_{j_i=l_i+n-D}^{n} \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_s+1}^{(n_i-j_s+1)} \\ &\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-k_2)} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\ &\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\ &\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\ &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ &\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \end{aligned}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-)} \sum_{(l_i+n-D)}^{()}$$

$$\sum_{(n+l_k)}^{(n+l_k+1)} \sum_{(n_{is}=n_{is}+1)}^{(n_{is}+1)}$$

$$\frac{\sum_{(n_{ik}=n_{is}+1)}^{()} \sum_{(j_{ik}=j_{ik}-l_{k_1}+l_{k_2})}^{()} \sum_{(j_i-l_{k_2})}^{()}}{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!} \cdot \frac{(n_i - n_{ik} - l_{k_1} - l_{k_2})! \cdot (n_i + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}{(n_i - n_{ik} - l_{k_1} - l_{k_2})! \cdot (n_i + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq 1 \wedge l_s \leq D - n - 1 \wedge$$

$$D + l_s + s - 1 - l_i + 1 \leq l \leq l - 1 \wedge$$

$$1 \leq i_k \leq j_{ik} - j_{sa}^{ik} - 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l \wedge l_s - j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - 1 \leq l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = l_k \geq 0 \wedge$$

$$j_{sa}^{l_k} - j_{sa} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, l_{k_1}, j_{sa}^{ik}, l_{k_2}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + l_k \wedge$$

$$l_{k_2}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$\begin{aligned}
 f_{Z^S} S_{j_s, j_{ik}, j_i} &= \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)} \\
 &\sum_{j_{ik}=j_s+l_{ik}-l_s}^{(l_i-l+1)} \sum_{(j_i=l_i+n-1)} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{ik}=n+k_2-1}^{(n_i+j_{ik}-l_{ik_2})} \sum_{(n_s=n-j_i+1)} \\
 &\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_i - j_s + 1)!} \cdot \\
 &\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik})!} \cdot \\
 &\frac{(n_i - n_s - 1)!}{(n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 &\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 &\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 &\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 &\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)} \\
 &\sum_{j_{ik}=j_s+l_{ik}-l_s}^{(\quad)} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\cdot)}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$

$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$

$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$

$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$

$s = 3 \wedge s = s + 1$

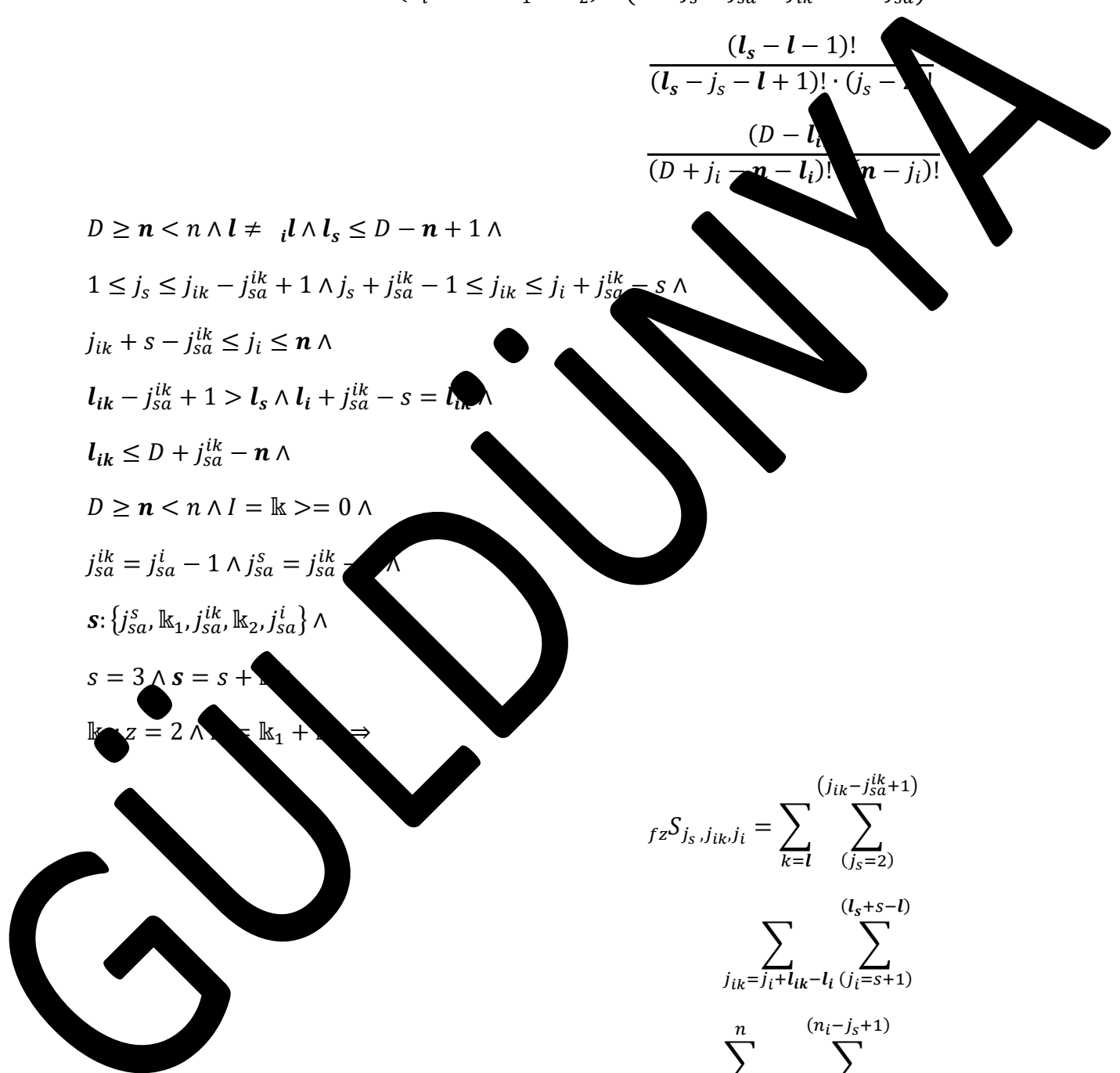
$\mathbb{k}_1 + z = 2 \wedge \mathbb{k}_2 = \mathbb{k}_1 + 1 \Rightarrow$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=s+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l - 1)!}{(l_s - l + 1)! \cdot (l - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_s)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)} \\
& \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_i - l + 1)} \sum_{(j_i=l_s+s-l+1)} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}
\end{aligned}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=l}^{()} \sum_{j_s=j_{ik}^{(k)}+1}^{()} \sum_{j_{ik}=j_{ik}^{(k)}-l_i}^{()} \sum_{j_i=j_i^{(k)}+1}^{()} \sum_{n_{is}+k}^{()} \sum_{n_s=n_{is}+k-j_s+1}^{()} \sum_{k=n_{is}+j_s-k-k_1}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-k_2}^{()} \frac{(n_i + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$j_{sa}^{ik} \geq n < n \wedge l \neq i \wedge l \leq D - n + 1 \wedge$$

$$1 \leq j_{ik} \leq j_{ik} - j_{sa}^{ik} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$j_{sa}^{ik} - j_{sa}^{ik} > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge I = k \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=j_{ik}-k}^{(n_i-1)}$$

$$\sum_{n_{ik}=n_i-k}^{(n_{ik}=n+l-k-j_s)}$$

$$\sum_{n_{ik}=n_i-j_{ik}+1}^{(n_{ik}=n+l-k-j_s)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_i - n_{ik} - j_s + 1)!}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - j_i - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

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$$\begin{aligned}
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - j_i - n - j_i - l - 1)!}{(n_s - j_i - n - j_i - l - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{ik} + l_{ik} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{()} \\
 & \sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_s + j_{sa}^{ik} - l} \sum_{(j_i = j_{ik} + l_i - l_{ik})}^{()} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{()} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot
 \end{aligned}$$

GÜLDÜSÜZ

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} - 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=l}^{j_s - l + 1} \sum_{i=0}^{(j_s - l + 1) - k} \sum_{j_{ik} = j_{sa}^{ik} - 1}^{(j_s - l + 1) - i - l_{ik}} \sum_{n_i = n + k}^{(n_i - j_s + 1)} \sum_{(n_{is} = n + k - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1}^{(n_s = n_{ik} + j_{ik} - j_i - k_2)} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D > n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_i - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge I = k \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik} - j_{sa}^{ik})} \sum_{(j_s=2)}^{(j_s - l)} \sum_{(l_s - l)}^{(l_s - l - 1)} \sum_{(j_i = l_i + 1)}^{(n - j_i + 1)} \sum_{(n_i = n + \mathbb{k}_1 - j_s + 1)}^{(n - j_s + 1)} \sum_{(n_{is} + j_s - j_{ik} - \mathbb{k}_1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \sum_{(n_{ik} = \mathbb{k}_2 - j_{ik} + 1)}^{(n_s = n - j_i + 1)} \frac{(n_i - n_{is} - 1)!}{(j_i - j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(n_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}$$

GÜLDÜNYA

$$\begin{aligned}
 & \sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{(n_{ik}+j_{ik}-j_i-l_{k_1})} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s+1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_{ik}-n_s)!}{(j_i-l_{k_2}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \cdot \\
 & \frac{(n_i-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \cdot \\
 & \sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{()}
 \end{aligned}$$

GÜLDENWA

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - l_s + 1)!}$$

$$\frac{(l_i - l_j)!}{(n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{l+1} \sum_{(j_s=2)}$$

$$\sum_{l_i - l_s - k - l - s + 1}^{l_i - l_s - k - l - s + 1} \sum_{(j_i = j_{ik} + l_i - l_{ik})}^{(j_i = j_{ik} + l_i - l_{ik})}$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

GÜLDÜMBA

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_i+n_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{(n_i-j_s+1)} \sum_{(n_i+l_{ik}+l_{k_1}+l_{k_2}-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}} \sum_{(j_{ik}-l_{k_1})} \sum_{(n_{ik}+j_{ik}-j_i-l_{k_2})}$$

$$\frac{(n_i + j_s - j_{sa}^{ik} - j_{ik} - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - l_{k_1} - l_{k_2} - l_{k_1} - l_{k_2} + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq 1 \wedge l_s \leq \dots \wedge 1$$

$$1 \leq j_s - j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} - j_i \leq n$$

$$l_{ik} - j_{sa}^{ik} - 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - \dots < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq \dots < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$\begin{aligned}
 f_z^S j_s, j_{ik}, j_i &= \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=2)}^{(l_i+n-D-s)} \\
 &\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-l-s+1}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 &\sum_{n_i=n-l_i-j_s+1}^n \sum_{(j_s+1)}^{(j_s+1)} \\
 &\sum_{i_{ik}+1}^{n_{is}+j_s-j_{ik}-1} \sum_{(n_{ik}+j_{ik}-j_{ik})}^{(n_{ik}+j_{ik}-j_{ik})} \\
 &\frac{(n_i - n_{is})!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \\
 &\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 &\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 &\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}
 \end{aligned}$$

GÜLDENWA

$$\begin{aligned}
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - n_s - j_{ik})!} \cdot \\
 & \frac{(n_s - j_i - n - j_{ik} - 1)!}{(n_s - j_i - n - j_{ik} - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_i + l_{ik} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l} \sum_{(j_s = l_i + n - D - s + 1)}^{(l_s - l + 1)} \\
 & \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1} \sum_{(j_i = j_{ik} + l_i - l_{ik})}^{(\quad)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{(\quad)} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}
 \end{aligned}$$

GÜLDÜZMAYA

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)} \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_s - l)!}{(D + j_s - n - l_i)! \cdot (j_i - l_i)!} + \\
& \sum_{k=1}^{l_s - l + 1} \sum_{j_s=2}^{l_s - l + k} \sum_{j_i=l_i + l_{ik} - l_i}^{l_{ik} + s - l - j_{sa}^{ik} + 1} \sum_{j_i=l_s + s - l + 1}^{n_i - j_s + 1} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik}=n+k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s=n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(\)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=l_{ik}+l_i-D-j_{sa}^{ik})}$$

$$\sum_{n+l_k}^{(n_i+l_k+1)} \sum_{(n_{is}=n_i+l_k+1)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - l_k - s - l_k - j_{sa}^s)!}{(n_i - n - l_k - l_k)! \cdot (n_i + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq 0 \wedge l_s \leq D - n - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} - s - j_{sa}^{ik} \leq j_i - n \wedge$$

$$l_k - j_{sa}^{ik} - 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_s < D - l_s + s - n - 1 \wedge$$

$$D - n < l_s \wedge l = l_k \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, l_{k_1}, j_{sa}^{ik}, l_{k_2}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + l_k \wedge$$

$$l_{k_2}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$\begin{aligned}
 f_{z^S}^{S_{j_s, j_{ik}, j_i}} &= \sum_{k=l}^{(j_{ik} - j_{s_a}^{ik} + 1)} \sum_{(j_s=2)} \\
 &\sum_{j_{ik}=l_{ik} + n - D}^{l_s + j_{s_a}^{ik} - l} \sum_{(j_i=j_{ik} + l_i - l)}^{(\quad)} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{ik}=n+k_2-1}^{n_{is}+j_s-j_{ik}-1} \sum_{(n_s=n-j_i-1)}^{n_{is}+j_s-j_{ik}-1+j_{ik}-l_{i_2}-k_2} \\
 &\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 &\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \\
 &\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 &\frac{(l_{ik} - l_s - j_{s_a}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{s_a}^{ik} + 1)!} \\
 &\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 &\sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)} \\
 &\sum_{j_{ik}=l_s + j_{s_a}^{ik} - l + 1}^{l_{ik} - l + 1} \sum_{(j_i=j_{ik} + l_i - l_{ik})}^{(\quad)} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\frac{\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} (n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + 1 - n - l_i)! \cdot (n - j_i)!} \cdot$$

$$\sum_{k=l}^{(\)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(\)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s} j_i = \sum_{k=l}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\begin{aligned}
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{(l_s+1)} \frac{\Delta_{l_{ik}+n-j_{sa}^{ik}+1}}{\Delta_{l_{ik}+n-j_{sa}^{ik}+1}} \cdot \\
 & \sum_{i_s=j_s+j_{sa}^{ik}}^{l+1} \sum_{i_i=j_{ik}+l_i-l_{ik}}^{l+1} \cdot \\
 & \sum_{n_{is}=n+l_k-j_s+1}^{n+l_k-j_s+1} \sum_{n_{ik}=n+l_k-j_s+1}^{n+l_k-j_s+1} \cdot \\
 & \sum_{n_{ik}=n+l_k-j_s+1}^{n+l_k-j_s+1} \sum_{n_{is}=n+l_k-j_s+1}^{n+l_k-j_s+1} \cdot \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot
 \end{aligned}$$

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$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{()} \sum_{(j_i=j_{ik}+l_i-l)}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_k}^{()} \sum_{(n_{ik}+j_{ik}-j_i)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{sa}^s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_{ik} + j_{ik} - j_i - l_k - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq n - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq l_s - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_s \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{ik} + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - l_{ik} < l_{ik} \leq D - l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = 0 = 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\{s = 1, j_{sa}^{ik}, l_{k_2}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + l_k \wedge$$

$$l_{k_z}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_i-l+1)} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{is}+j_s-j_{ik}}^{(n_{ik}+j_{ik}-i-l_{k_2})} \sum_{(n_s=n-j_i)}^{(n_{ik}+j_{ik}-i-l_{k_2})}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{ik} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(n_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\quad)}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq i \wedge l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i \leq j_i + j_{sa}^{ik} - 1 \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2\} \wedge$$

$$s = 3 \wedge s = \mathbb{k}_1 + \mathbb{k}_2 \wedge$$

$$\mathbb{k}_z: s = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{\binom{(\quad)}{j_i=j_{ik}+l_i-l_{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\frac{\sum_{n_{ik}=n+l_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_i)!} \cdot$$

$$\frac{(n_{ik}-n_s-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \cdot$$

$$\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot$$

$$\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot$$

$$\frac{(l_{ik}-l_s+j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_s-j_s-j_{sa}^{ik}+1)!} \cdot$$

$$\frac{(D-l_i)!}{(D+n-l_i)! \cdot (n-j_i)!} \cdot$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{()}$$

$$\frac{(n_i+j_s+j_{sa}^{ik}-j_{ik}-s-l_{k_1}-l_{k_2}-j_{sa}^s)!}{(n_i-n-l_{k_1}-l_{k_2})! \cdot (n+j_s+j_{sa}^{ik}-j_{ik}-s-j_{sa}^s)!} \cdot$$

$$\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq i \wedge l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz \mathcal{S}_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} - 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{l=1}^{j_s - j_{ik} - j_{sa}^{ik} + s - l} \sum_{j_{ik} = j_i + l}^{j_i} \sum_{j_i = l_{ik} + n + s - D - j_{sa}^{ik}}^{j_i} \sum_{n_i = n + k}^{n_i} \sum_{n_i = n + k - j_s + 1}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1}^{()} \sum_{(n_s = n_{ik} + j_{ik} - j_i - k_2)}^{()} \frac{(n_i - n - k_1 - k_2)! \cdot (j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D - n < l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s-l+1)} \sum_{j_s=2}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=l_{ik}+n}^{l+1} \sum_{j_i=j_{ik}+l_i-l_{ik}}$$

$$\sum_{n_{is}=n+\mathbb{k}-j_s+1}^{j_s+1}$$

$$\sum_{n_{ik}=n_2-j_{ik}+1}^{n_{ik}+j_{ik}-j_i-\mathbb{k}_2} (n_s=n-j_i+1)$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+l_i-l)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{ik}} \sum_{(n_{ik}+j_{ik}-j_i)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{sa}^{ik} - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_{is} + j_{sa}^{ik} - j_{sa}^{ik} - j_{sa}^s)!}$$

$$\frac{(l_{k_1} - l - 1)!}{(l_{k_1} - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l = l \wedge l_s \leq n - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa}^{ik} + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + l_i - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > 0 \wedge l_i + j_s - s = 0 \wedge$$

$$l_{ik} \leq n + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = k \Rightarrow \wedge$$

$$j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^s, k_2, j_{sa}^i\} \wedge$$

$$2 \wedge l = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(\cdot)} \sum_{i=l}^{(\cdot)} (j_s=1)$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_i-l_{i+1})} \sum_{(j_i=s)} \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_s=n-j_i}^{n_{ik}+j_{ik}-j_i-l_{k_2}}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} + j_{ik} + 1)!} \cdot \frac{(n_{ik} - n - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j_i - l_{k_2} - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_{ik} - l_s - j_{ik} - 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=1)}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{()} \sum_{(j_i=s)}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}-l_{k_1}+1)}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_{k_2}}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l = {}_i l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} \geq 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, l_i} \sum_{k=i}^{(\cdot)} \sum_{j_s=1}^{(\cdot)}$$

$$l_{ik} - i \sum_{j_{ik}=j_{sa}^{ik}}^{(\cdot)} \sum_{j_i=l_{ik}}^{(\cdot)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n-\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_2+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=i}^{(\cdot)} \sum_{j_s=1}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{(\cdot)} \sum_{j_i=s}^{(\cdot)}$$

GÜLDENWA

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{(\cdot)}{n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1}} \sum_{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2$$

$$f_z^S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{\binom{(\cdot)}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_{ik}=l_{ik}+n-D}^{j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\begin{aligned}
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(l_i - l)!}{(D + j_i - n - l_i)! \cdot (j_i)!} + \\
 & \sum_{j_{ik} = n - D}^{l_{ik} - l} \sum_{j_{sa}^{ik} = 0}^{(l_i - l + 1)} \\
 & \sum_{n_i = n + k}^n \sum_{n_{is} = n + k - j_s + 1}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot
 \end{aligned}$$

GÜLDÜMVA

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(\)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_{ik}+s-l-j_{sa}^{ik})} \sum_{(j_i+l-k_1+n-D)}$$

$$\sum_{n+l-k}^{(n_i+l-k_1+1)} \sum_{(n_i+n+l-k_1+1)}$$

$$\sum_{(j_i-l-k_2)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - s - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_i + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > -n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} - s - j_{sa}^{ik} \leq j_i - s \wedge$$

$$l_k - j_{sa}^{ik} - 1 = l_s \wedge l_i - j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l_s > -n + 1 \wedge$$

$$j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, l_{k_2}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + l_k \wedge$$

$$l_{k_2}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-1}^{j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_1})} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_i-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)!(n_i-n_{ik}-j_{ik}-l_{k_1})!} \cdot \\
 & \frac{(n_i-n_{ik}-l_{k_1}-1)!}{(j_i-n_{ik}-1)!(n_{ik}+j_{ik}-n_s-j_i)!} \cdot \\
 & \frac{(n_s-j_i-n-1)! \cdot (n-j_i)!}{(n_s-j_i-1)!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_i+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} +
 \end{aligned}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}$$

GÜLDÜSÜZ

$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - 1)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_i - s)!}{(j_{ik} + l_i - 1)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \\
& \sum_{j_{ik} = j_i + j_{sa}^{ik} - s}^{(l_s + s - l)} \sum_{(j_i = l_i + n - D)}^{(\cdot)} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(\cdot)} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{(\cdot)} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned} & \sum_{j_i = j_{sa}^{ik} + 1}^{(l_i - l + 1)} \\ & \sum_{j_i = l_i + n - D}^{(l_i - l + 1)} \\ & \sum_{n_i = n + k}^n \sum_{(n_i = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\ & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - k_2)} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\ & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\ & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \end{aligned}$$

$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
 & \sum_{n+l_k}^n \sum_{(n_{is}=n+l_k+1)}^{(n_{is}+1)} \\
 & \sum_{n_{ik}+l_{k_2}-j_{ik}}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_{ik}+j_{ik}-j_i-l_{k_2})}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
 & \frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_i-1)! \cdot (n_{is}-j_s+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_i-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-l_{k_1})!} \\
 & \frac{(n_{ik}-n_s-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
 & \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)}
 \end{aligned}$$

GÜLDÜZMAYA

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l_i - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}^i\} \wedge$

$s: 3 \wedge s = \mathbb{k}_1 + \mathbb{k}_2 \wedge$

$\mathbb{k}_z: \mathbb{k}_z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-s-1}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - 1)!}{(j_s - l_s + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa} - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (l_i + j_{sa} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + 1 - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} + \\
 & \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
 & \sum_{j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot
 \end{aligned}$$

GÜLDÜZÜMÜYA

$$\begin{aligned}
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{j_{sa}^{ik} = j_{sa}^{ik} + 1}^{(\cdot)} \\
& \sum_{j_{ik} = l_i}^{l_s + j_s - l} \sum_{j_{sa}^{ik} = D - s}^{(\cdot)} (j_i = j_{ik} + s - j_{sa}^{ik}) \\
& \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - k_2)}^{(\cdot)} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$l_s \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_i + \mathbb{k} - D - s)} \sum_{j_{ik}=j_s + j_{sa}^{ik} - 1}^{(j_i + n - D - j_{sa}^{ik} + 1)} \sum_{j_i=l_i + n - D}^{(j_i + n - D)} \sum_{n_i=n - \mathbb{k} - j_s + 1}^{(n_i + \mathbb{k} - j_s + 1)} \sum_{n_{ik}=n - j_{ik} - \mathbb{k}_1}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \sum_{n_{ik}=n - j_{ik} - \mathbb{k}_2}^{(n_s = n - j_i + 1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(n_{is} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

GÜLDÜNYA

GÜLDENWASSER

$$\begin{aligned}
 & \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_i-l+1)} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{sa}^{ik}-1}^{(n_i+j_s-j_{ik}-j_{sa}^{ik}-j_{ik}-k_2)} \sum_{(n_s=n-j_i+1)}^{(n_i-j_s+1)} \\
 & \frac{(n_i-n_{ik}-1)!}{(j_s-2)! \cdot (n_i-n_{ik}-j_s+1)!} \\
 & \frac{(n_i-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-k_1)!} \\
 & \frac{(n_i-n_s-1)!}{(n_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!}
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\quad)} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\cdot)}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=l_s+n-D)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_i-l+1)} \sum_{(j_i=l_i+n-D)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l - s)!}{(j_{ik} + l_i - j_i - l_{ik} - s)! \cdot (j_i + j_{sa}^{ik} - s)!} \cdot \\
 & \frac{(l_i - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=0}^{\infty} \sum_{i_s=l_i+n-D-s+1}^{\infty} \\
 & \sum_{k=j_s+j_{sa}^{ik}-1}^{l_i-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{l_i-l+1} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

GÜLDÜMBA

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{(l_s - l + 1)} \sum_{(j_s = l_i + n - D - s + 1)}$$

$$\sum_{j_{ik} = j_s + j_{sa}^{ik} - l_{ik} - l_{k_1} - l_{k_2}}^{(n_i - j_s + 1)}$$

$$\sum_{n_i + k_1}^{(n_i - j_s + 1)} \sum_{(n_i + k_2 - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} - j_{ik} - k_1} \sum_{(n_{ik} + j_{ik} - j_i - k_2)}$$

$$\frac{(n_i + j_{sa}^{ik} - j_{ik} - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i + j_{sa}^{ik} - j_{ik} - l_{k_1} - l_{k_2} - 1)! \cdot (n_i + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_i + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz \mathcal{S}_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n}^n \sum_{(n_i=j_s+1)}^{(n-j_s+1)}$$

$$\sum_{(j_{ik}+j_s-n)}^{\mathbb{k}_1} \sum_{(n_{ik}+j_{ik}-j_s)}^{\mathbb{k}_2}$$

$$\frac{(n_i - n_{is})!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} + j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)}$$

GÜLDENWA

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i + j_{sa}^{ik} - 1 \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge$$

$$s = (j_{sa}^s, \dots, \mathbb{k}_1, \dots, \mathbb{k}_2, j_{sa}^s) \wedge$$

$$s > 3 \wedge s = s + \mathbb{k}$$

$$\mathbb{k}_z: z = \dots \wedge \mathbb{k} = \mathbb{k}_1 + \dots \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
& \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (l_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
& \sum_{k=l}^{(\)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\)} \\
& \sum_{j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=\mathbf{n}_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\)} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{j_s=l_{ik}+n-D-j_{sa}^{ik}+1}^{(l_i-l+1)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_i-l+1)} \sum_{j_i=l_i+n-D}^{(l_i-l+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{j_s=l_i+n-D-s}^{(l_s-l-1)+2} \sum_{j_{ik}=j_{sa}^{ik}-1}^{(j_i+l_i-j_i-s)} \sum_{n_i=n+l_k}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})} \\
& \frac{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D > n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{sa}^{ik} - j_{sa}^s + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}^{(j_s+l_s+n-D)}$$

$$\sum_{(j_i=l_i+n-D)}^{(j_i+l_i+n-D)}$$

$$\sum_{(n_i=n+l_s-j_s+1)}^{(n_i+l_s-j_s+1)}$$

$$\sum_{(n_{is}=n+l_s-j_s+1)}^{(n_{is}+l_s-j_s+1)}$$

$$\sum_{(n_s=n-j_i+1)}^{(n_s+l_s-j_i+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

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$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{(n_{ik}+j_{ik}-j_i-l_{k_1})}$$

$$\frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!}$$

$$\frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)!(n_{is}-n_{ik}-j_{ik}-l_{k_1})!}$$

$$\frac{(n_i-1)!}{(j_i-1)!(n_{ik}+j_{ik}-n_s-j_i)!}$$

$$\frac{(n_i-1)!}{(n_s)!(j_i-n-1)! \cdot (n-j_i)!}$$

$$\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_{ik}-l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!}$$

$$\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!}$$

$$\sum_{k=l} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{()}$$

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$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 =$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + n - D)}$$

$$\sum_{j_{ik} = l_i + n + j_{sa}^{ik} - D - s}^{l_s + j_{sa}^{ik} - l} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{()}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\begin{aligned}
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_s - l)!}{(D + j_s - n - l_i)! \cdot (j_i - l_i)!} + \\
 & \sum_{j_{ik} = n + k_2 - j_{ik} + 1}^{l_i + j_{sa}^{ik} - s + 1} \sum_{j_{sa}^{ik} = l + 1}^{(l_s - l + 1)} \sum_{j_i = j_{ik} + s - j_{sa}^{ik}}^{(n - l_i)} \\
 & \sum_{n_i = n + k_1}^n \sum_{(n_{is} = n + k_1 - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)}$$

$$\sum_{n+l_k}^{n+l_k} \sum_{(n_i=n+l_k+1)}$$

$$\sum_{(j_i=j_{ik}-l_k)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - s - l_k - j_{sa}^s)!}{(n_i - n - l_k - l_k)! \cdot (n_i + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > -n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} - s - j_{sa}^{ik} \leq j_i - n \wedge$$

$$l_k - j_{sa}^{ik} - 1 > l_s \wedge l_i - j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l_s > -n \wedge$$

$$j_{sa}^{ik} - j_{sa}^{ik} - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, l_k, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + l_k \wedge$$

$$l_k: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=l_s+n-D)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-l-s+1} \binom{(\quad)}{\quad} \\
 & \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_s}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-k_1)} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!} \cdot \frac{(n_i-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-k_1)!} \\
 & \frac{(n_i-n_s-1)!}{(j_i-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \cdot \frac{(n_s-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_{ik}-l_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{j_s=l_i+n-D-s+1}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_i+j_{sa}^{ik}-l-s+1} \binom{(\quad)}{\quad} \\
 & \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_s+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-k_2)}
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - 1)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_i + n - D - s + 1)} \\
& \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned} & \sum_{j_{ik}=j_{sa}^{ik}-s}^n \sum_{j_i=l_{ik}+n+s-D-j_{sa}^{ik}}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{l_s=l_s+n-D}^{(l_s+s-l)} \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_s+1}^{(n_i-j_s+1)} \\ & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-k_2)} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\ & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\ & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \end{aligned}$$

$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)}^{(l_{ik} + s - l - j_{sa}^{ik})} \\
 & \sum_{j_{ik} = j_i + j_{sa}^{lk} - s}^{(n_i + s - l + 1)} \sum_{(j_i = l_{ik} + n + s - D - j_{sa}^{ik})}^{(n_i + 1)} \\
 & \sum_{n + l_k}^{(n_{is} = n + l_k + 1)} \sum_{(n_{ik} + j_{ik} - j_i - l_{k_1})}^{(n_{ik} + j_{ik} - j_i - l_{k_2})} \\
 & \sum_{n_{ik} + l_{k_2} - j_{ik}}^{(j_s - j_i + 1)} \frac{(n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_i - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
 & \sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{()} \\
 & \sum_{j_{ik} = j_i + j_{sa}^{lk} - s}^{(l_s + s - l)} \sum_{(j_i = l_{ik} + n + s - D - j_{sa}^{ik})}^{()}
 \end{aligned}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{i_s}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l_i - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}^i\} \wedge$

$s \geq 3 \wedge s = \mathbb{k}_1 + \mathbb{k}_2 \wedge$

$\mathbb{k}_2: \mathbb{k}_2 = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
& \sum_{n_{ik}=n+l_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - l_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_1)!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 1)!}{(j_s - l_s + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + 1 - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \\
& \sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - l_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_1)!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{j_{sa}^{ik} = j_{sa}^{ik} + 1}^{(j_s - l)} \\
& \sum_{j_i = l_{ik} + n - D}^{l_s - j_{sa}^{ik} - l} \\
& \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1}^{(n_s = n_{ik} + j_{ik} - j_i - k_2)} \sum_{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!} \\
& \frac{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}{(l_s - l - 1)!} \cdot (j_s - 2)! \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$l_i \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{l=1}^{(l_i - n - D - j_{sa}^{ik})} \sum_{(j_s = l, n - D)}^{(l_i - n - D - j_{sa}^{ik})} \sum_{i_k = l_{ik} + n - l}^{l+1} \sum_{(j_{ik} = j_{ik} + s - j_{sa}^{ik})}^{(l_i - j_i + 1)} \sum_{n_{i_s} = \mathbb{k}}^{n_{i_s} + \mathbb{k}} \sum_{(n_{i_s} = n + \mathbb{k} - j_s + 1)}^{(l_i - j_i + 1)} \sum_{n_{i_k} = \mathbb{k}_2 - j_{ik} + 1}^{n_{i_k} + \mathbb{k}_1} \sum_{(n_{i_k} + j_{ik} - j_i - \mathbb{k}_2)}^{(n_{i_k} + j_{ik} - j_i - \mathbb{k}_1)} \sum_{(n_s = n - j_i + 1)}^{(n_s = n - j_i + 1)} \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \frac{(n_{i_s} - n_{i_k} - \mathbb{k}_1 - 1)!}{(j_s - 1)! \cdot (n_{i_s} + j_s - n_{i_k} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{i_k} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{i_k} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

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$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{lk})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik_2}+1}^{n_{is}+j_s-j_{ik_2}-1} \sum_{(n_s=n-j_i+l_{k_2})}^{(n_i-j_s+1)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!}$$

$$\frac{(n_{is} + j_s - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{lk} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{lk} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

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$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{()} \sum_{(j_i=j_{ik}+s-j_{sa}^{lk})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\cdot)}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i \leq j_i + j_{sa}^{ik} \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik}$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + 1 \wedge$$

$$\mathbb{k} : z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + 1 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_i-l+1)} \sum_{(j_i=l_i+n-D)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - 1)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l - 1)!}{(l_s - j_i - l + 1)! \cdot (l - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \\
 & \sum_{j_{ik} = j_i + j_{sa}^{ik} - s}^{(l_s + s - l)} \sum_{(j_i = l_i + n - D)}^{(\cdot)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(\cdot)} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{(\cdot)} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f^{z=2}(j_{ik}, j_i) = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$j_{ik} = l_i + \sum_{j_{sa}^{ik}=D-s}^{(j_i=j_{ik}+s-j_{sa}^{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-l}^{(j_{ik}-j_s-j_{sa}^{ik})}$$

$$\sum_{n+l}^{(n_i-j_s+1)} \sum_{(n+l-k-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}-j_{ik}-k_1}^{(n_{ik}+j_{ik}-j_i-k_2)}$$

$$\frac{(n_i + j_s - j_{sa}^{ik} - j_{ik} - k_1 - k_2 - j_{sa}^s)!}{(k_1 - 1)! \cdot (n_i + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_i + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^{\mathcal{S}_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_{ik}+s-l-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=n+1}^n \sum_{(n_i+j_s+1)}^{(n+j_s+1)}$$

$$\sum_{(n_{is}+j_s-j_{ik}-\mathbb{k}_1)}^{(n_{ik}+j_{ik}-\mathbb{k}_1)} \sum_{(j_{ik}+1)}^{(n-j_i+1)}$$

$$\frac{(n_i - n_{is})}{(j_s - 2) \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - j_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_s+s-l)}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i + j_{sa}^{ik} - 1 \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{ik} - s = l_{ik} \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge$

$s = (j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^s) \wedge$

$s > 3 \wedge s = s + \mathbb{k}$

$\mathbb{k}_z : z = 1 \wedge \mathbb{k} = \mathbb{k}_1 + \dots \Rightarrow$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
& \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - \mathbf{n} - 1)! \cdot (n - j_i)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + \mathbf{n} - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{(\)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\)} \\
& \sum_{j_{ik}=l_{ik}+\mathbf{n}-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(\)} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\)} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^{j_{ik}, j_i} = \sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + n - D)}$$

$$\sum_{j_{ik} = l_{ik} + n - D}^{j_i + j_{sa}^{ik} - s} \sum_{(j_i = l_i + n - D)}^{(l_s + s - l)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\begin{aligned}
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{(l_s - l + 1)} \sum_{j_s=l_s+n-k}^{(l_s - l + 1)} \sum_{j_{ik}=j_{ik}+n-D}^{(l_i - l + 1)} \sum_{j_i=l_s+s-l+1}^{(l_i - l + 1)} \sum_{n_i=n+k}^{(n_i - j_s + 1)} \sum_{n_{is}=n+k-j_s+1}^{(n_i - j_s + 1)} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n - j_{ik} - k_1} \sum_{n_s=n-j_i+1}^{(n_{ik} + j_{ik} - j_i - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
 \end{aligned}$$

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$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1, \dots, +s-l)} \sum_{(j_i=j_i+j_{sa}^{ik}, \dots, l_{ik}-D)} \sum_{(n_i-j_s+1, \dots, +\mathbb{k}_1)} \sum_{(n_i-j_s+1, \dots, +\mathbb{k}_2)} \sum_{(n_{ik}=n_{is}, \dots, -j_{ik}-\mathbb{k}_1)} \sum_{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \frac{(n_i + j_s - j_{sa}^{ik} - j_{ik} - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - j_s - \mathbb{k}_1 - \mathbb{k}_2 - 1)! \cdot (n_i + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_{sa}^{ik} - j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} < j_i \leq n$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} - j_{ik} - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=l_i+n-1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik_1}+1}^{n_{is}+j_s-j_{ik_1}-j_{ik_2}+j_{ik_1}-l_{k_2}} \sum_{(n_s=n-j_i+1)}$$

$$\frac{(n_i - n_{ik_1} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik_1} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!}$$

$$\frac{(n_s - n_s - 1)!}{(n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

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$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{i_s} + j_s - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_{ik})!} \cdot \\
 & \frac{(n_s - j_i - n - l - 1)!}{(n_s - j_i - n - l - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{i_s}^{ik} + 1)!}{(j_{i_s} + l_{ik} - j_{i_s}^{ik})! \cdot (j_{ik} - j_s - j_{i_s}^{ik} + 1)!} \cdot \\
 & \frac{(l_i + j_{i_s}^{ik} - l_{ik} - s)!}{(j_{i_s} + l_i - j_i - l_{ik})! \cdot (j_i + j_{i_s}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{\binom{D}{l}} \sum_{(j_s=j_{ik}-j_{i_s}^{ik}+1)}^{\binom{D}{j_s}} \\
 & \sum_{j_{ik}=l_i+n+j_{i_s}^{ik}-D-s}^{l_s+j_{i_s}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{i_s}^{ik})}^{\binom{D}{j_i}} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{i_s}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{\binom{D}{n_s}}
 \end{aligned}$$

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$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 =$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\begin{aligned}
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik})!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{sa}^{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l_i+n-D-s+1}^{k-l+1} \sum_{j_i=j_{ik}+s-j_{sa}^{ik}}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_k-1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k-2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_k - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_k)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}
 \end{aligned}$$

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$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{i=l_i+n}^{l+1} \sum_{s=s+1}^{l+1}$$

$$\sum_{j_s=j_s+j_{sa}^{ik}}^{j_{ik}+s-j_{sa}^{ik}}$$

$$\sum_{n_i=n_i+l_{ik}}^{n_i+l_{ik}+1} \sum_{n_{is}=n+l_{ik}-j_s+1}$$

$$\sum_{n_{is}=n_i+j_{ik}-l_{k_1}}^{n_i+l_{ik}-l_{k_1}} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_{k_2}}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_i + s - n - 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_s + s - j_{sa}^s \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge I = l_{k_1} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-1)}^{(l_s-l+1)}$$

$$j_{ik} = \sum_{l_{ik}-l+1}^{l_{ik}-l+1} \sum_{(j_i=n-D)}^{(l_i-l+1)}$$

$$n_i = \sum_{n_i=n+k_1}^n \sum_{(n_i=n+k_2-j_s+1)}^{(n_i)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{ik} - k_1 - 1)!}{(j_{ik} + j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

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$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{(j_i=l_i+n)}^{(\cdot)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_k}^{(\cdot)} \sum_{(n_{ik}+j_{ik}-j_i)}^{(\cdot)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - l_k - l_s - j_{sa}^s)!}{(n_i - n - l_k - l_s)! \cdot (n_{is} + j_{sa}^{ik} - l_k - j_{sa}^s)!} \cdot \frac{(l_k - l - 1)!}{(l_k - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq n - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_i + j_s - s > 0 \wedge$$

$$l_i \leq l_i + s - n \wedge$$

$$D \geq n < n \wedge l = l_k > 0 \wedge$$

$$j_{sa}^{ik} = j_i - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, l_k, j_{sa}^i\} \wedge$$

$$3 \wedge l_i = s + l_k \wedge$$

$$l_k: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{j_i+j_{sa}^{ik}-s} \sum_{(j_i=s+1)}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_1})} \\
 & \frac{(n_i-1)!}{(j_s-2)! (n_i-n_{is}-1)!} \cdot \frac{(n_i-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! (n_i-n_{ik}-j_{ik}-l_{k_1})!} \\
 & \frac{(n_s-n_s-1)!}{(j_i-n-1)! (n_{ik}+j_{ik}-n_s-j_i)!} \cdot \frac{(n_s-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_i+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} +
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}-l+1} \sum_{(j_i=l_{ik}+s-l-j_{sa}^{ik}+2)}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - 1)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l - 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_i - s)!}{(j_{ik} + l_i - 1)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \\
 & \sum_{j_{ik} = j_i + j_{sa}^{ik} - s}^{(l_{ik} + s - l - j_{sa}^{ik} + 1)} \sum_{(j_i = s + 1)}^{(\cdot)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(\cdot)} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{(\cdot)} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, \dots, j_i} = \sum_{k=l}^{()} (j_s = j_{ik} - j_{sa}^{ik} + 1)$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j_{sa}^{ik}-s} \sum_{(j_i=s+1)}^{(l_s+s-l)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{l_s = j_{sa}^{ik} + 1}^{l_s + j_{sa}^{ik} - l} \sum_{(l+1)}^{(l+1)}$$

$$\sum_{(n_i - j_s + 1)}^{(n_i - j_s + 1)} \sum_{(n_{ik} + k - j_s + 1)}$$

$$\sum_{n_{is} + j_{ik} - k_1}^{n_{is} + j_{ik} - k_1} \sum_{(n_{ik} - j_i - k_2)}^{(n_{ik} - j_i - k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

$$\sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

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$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=s+1)}^{(l_s+s-l)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_i-j_{l_{k_2}})}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - j_s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_{sa}^{ik} - j_{ik} - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - \dots)}{(D + j_{sa}^{ik} - n - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + i_{ik} \leq j_{ik} \leq j_s + j_{sa}^{ik} - s$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$

$l_i \leq l_s + s - n \wedge$

$D > n < n \wedge l_{k_1} - l_{k_2} > 0$

$j_{sa}^{ik} - j_{sa}^i - 1 \wedge j_{sa}^s - j_{sa}^{ik} - 1$

$\{j_{sa}^s, \dots, j_{sa}^{ik}, l_{k_1}, j_{sa}^{ik}, l_{k_2}, j_{sa}^i\} \wedge$

$s > 3 \wedge s = s$

$l_{k_2} - l_{k_1} = l_{k_2} - l_{k_1} + l_{k_2} \Rightarrow$

$$f_Z S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

$$\frac{\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_{ik_1})!} \cdot \frac{(n - j_i - 1)!}{(n_s - j_i - n - j_{ik_1} - j_i)!} \cdot \frac{(n - j_s - l - 1)!}{(n - j_s - l - 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_s - l_{ik} - s)!}{(j_{ik} + l_{k_1} - j_i - l_{k_1})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

$$\sum_{k=l}^{\binom{()}{}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{()}{}}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{\binom{()}{}}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{\binom{()}{}}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_s + j_{sa}^{ik} - l} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{(l_i - l + 1)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{j_{sa}^{ik} = j_{sa}^{ik} + 1}^{(j_i - j_{ik} - 1)} \sum_{j_{ik} = j_{sa}^{ik} + 1}^{(j_i - j_{ik} - 1)} (j_i - j_{ik} - 1) \cdot \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - k_2)}^{(j_i - j_{ik} - 1)} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$1 \leq l \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz_{j_s, j_i, j_i} = \sum_{k=l}^{(l_i - j_{sa}^{ik} + 2)} \sum_{j_s = j_s + j_{sa}}^{(l_i - l + 1)} \sum_{n_i = n + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{n_{is} = n + \mathbb{k} - j_{ik} - \mathbb{k}_1}^{(n_{is} = n + \mathbb{k} - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{(n_i-j_s+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(n_i-j_s+1)} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_k}^{(n_i-j_s+1)} \sum_{(n_{ik}+j_{ik}-j_i=n_{is}+j_s-j_{sa}^{ik}-j_i)}^{(n_i-j_s+1)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - l_k - j_{sa}^s)!}{(n_i - n - l_k - j_s - j_{sa}^{ik})! \cdot (n_{is} + j_s - j_{sa}^{ik} - j_{sa}^s)!}$$

$$\frac{(l_i - l - 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq n - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq n + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n$$

$$l_{ik} - j_{sa}^{ik} + 1 = n \wedge l_i + j_s - s > n \wedge$$

$$l_i \leq n + s - n \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$2 \wedge n = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_1})}^{(n_{ik}+j_{ik}-j_i-l_{k_1})} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)!(n_{is}-n_{ik}-j_{ik}-l_{k_1})!} \cdot \\
 & \frac{(n_s-n_{ik}+j_{ik}-n_s-j_i)!}{(j_i-1)!(n_{ik}+j_{ik}-n_s-j_i)!} \cdot \\
 & \frac{(n_s-j_i-n-1)! \cdot (n-j_i)!}{(n_s-j_i-1)!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_i+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} -
 \end{aligned}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{(\quad)}$$

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$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{j_i + j_{sa}^{ik} - s} \sum_{(j_i = l_i + n - D)}^{(l_{ik} + s - l - j_{sa}^{ik} + 1)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - n_s)!}{(j_{ik} + l_i - j_i - l_{ik} - j_{sa}^{ik} - n_s)!} \cdot \\
& \frac{(n - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{s=1}^{l_i - l + 1} \sum_{j_s = j_{ik} - j_{sa}^{ik} + 1}^{l_i - l + 1} \\
& \sum_{k = j_{sa}^{ik} + 1}^{l_i - l + 1} \sum_{j_i = l_{ik} + s - l - j_{sa}^{ik} + 2}^{(l_i - l + 1)} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1, \dots, (l_{ik}+s-j_{sa}^{ik}+1))} \sum_{(j_{ik}=j_{sa}^{ik}-s, \dots, (n_i-j_s+1))} \sum_{(n_{ik}=n_{is}+j_{ik}-k_1, \dots, (n_{ik}+j_{ik}-j_i-k_2))} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n_{ik} - k_1 - k_2)! \cdot (n_{ik} + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq 1 \wedge l_s \leq l - 1 \wedge$$

$$1 \leq j_s = j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} = j_i \leq n$$

$$l_i - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n - l_i \leq D + l_{ik} + s - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz \mathcal{S}_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)}$$

$$\sum_{n_i=n+l}^n \sum_{(n+l-j_s+1)}^{(n-j_s+1)}$$

$$\sum_{i=1}^{n_i+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{ik}+j_{ik}-j_{ik})}^{(n_{ik}+j_{ik}-j_{ik})}$$

$$\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - j_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} + j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)}$$

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$$\frac{\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n - j_i - 1)!}{(n_s - j_i - n - j_i - 1)!} \cdot \frac{(n - j_s - l - 1)!}{(n - j_s - 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_i - l_{ik} - s)!}{(j_{ik} + l_{k_1} - j_i - l_{k_1})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

$$\sum_{k=l}^{\binom{()}{}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{(j_i=l_i+n-D)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{\binom{()}{}}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_i + n + j_{sa}^{ik} - D - s - 1} \sum_{(j_i = l_i + n - D)}^{(l_i - l + 1)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(l_i - l + 1)!}{(D + j_{ik} - n - l_i)! \cdot (j_i)!} + \\
& \sum_{j_{ik}=l_i}^{l_{ik}} \sum_{j_{sa}^{ik}=j_{ik}+1}^{(l_i-l+1)} \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k2})} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - l_{k1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k1})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(\)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = l_i + n + j_{sa}^{ik} - D - s}^{l_{ik} - l + 1} \sum_{(j_{ik} = j_i + s - j_{sa}^{ik})}^{(\)}$$

$$\sum_{n + k}^n \sum_{(n_{is} = n + k + 1)}$$

$$\sum_{(n_{ik} = n_{is} + j_{ik} - k_1)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - k - s - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n_i + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq 0 \wedge l_s \leq D - n \wedge l \wedge$$

$$1 \wedge j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} - s - j_{sa}^{ik} \leq j_i - s \wedge$$

$$l_s - j_{sa}^{ik} - 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < D - j_{ik} + s - n - j_{sa}^{ik} \wedge$$

$$D - n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned}
 f_{z^S} S_{j_s, j_{ik}, j_i} &= \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
 &\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j_i=l_i+n-)}^{(l_i-l+1)} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{ik}=n+k_2-j_{sa}^{ik}-1}^{\Delta} \sum_{(n_s=n-j_i-)}^{\Delta} \\
 &\frac{(n_s-n_{ik}-1)!}{(j_s-2)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \cdot \frac{(n_{is}+j_s-n_{ik}-j_{ik}-k_1-1)!}{(n_{ik}-j_s-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \\
 &\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
 &\frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \\
 &\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 &\sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
 &\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}
 \end{aligned}$$

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$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - j_i - n - l - 1)!}{(n_s - j_i - n - l - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_s - l_{ik} - s)!}{(j_{ik} + l_{ik} - j_i - s)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \\
& \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{\binom{()}{j_i=j_{ik}+s-j_{sa}^{ik}}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{\binom{()}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot
\end{aligned}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_z S_{j_s, j_{ik}, j_i} &= \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=2)} \\ &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_i-l+1)} \sum_{(j_i=l_i+n-D)} \\ &\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\ &\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\ &\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \\ &\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \end{aligned}$$

$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{j_s=l_i+n-D-s}^{(l_i-l-s+2)} \sum_{j_{ik}=j_{sa}^{ik}-1}^{(l_i-l+1)} \sum_{n_i=n+l_k}^{(n_i-j_s+1)} \sum_{n_{is}=n+l_k-j_s+1}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
& \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_i-n_{is}-1)!} \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot
\end{aligned}$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{()} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_k}^{()} \sum_{(n_{ik}=n_{is}+j_{ik}-j_i-j_{sa}^{ik})}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{sa}^{ik} - l_k - l - j_{sa}^s)!}{(n_i - n - l_k - l - j_{sa}^{ik} - j_{sa}^s)! \cdot (n_{is} + j_{sa}^{ik} - j_{sa}^s)!}$$

$$\frac{(l_{ik} - l - 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq n - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq n + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n - j_{sa}^{ik} \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = n - l_i + j_s - s > 0 \wedge$$

$$D + j_s - n < l_i \leq D - j_{ik} + s - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n - l = l_k > 0 \wedge$$

$$j_{sa}^{ik} = n - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, l_k, j_{sa}^i\} \wedge$$

$$2 \wedge l = s + l_k \wedge$$

$$l_k: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=2)}^{(l_i+n-D-s)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)!(n_{is}-n_{ik}-j_{ik}-l_{k_1})!} \cdot \\
 & \frac{(n_s-n_{ik}+j_{ik}-n_s-j_i)!}{(j_i-1)!(n_{ik}+j_{ik}-n_s-j_i)!} \cdot \\
 & \frac{(n_i-1)!}{(n_s)!(j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_i+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - 1)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_i - s)!}{(j_{ik} + l_i - l - 1)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_i + n - D - s + 1)} \\
 & \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{(j_i = j_{ik} + s - j_{sa}^{ik})} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \sum^{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\sum_{j_{ik}, j_{ik}, j_i} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{l_{ik}-l+1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)} \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{j_s=j_{ik}^{ik}+1}^{()}$$

$$\sum_{i=1}^{l_{ik}-1} \sum_{j_{ik}^{ik}+j_{sa}^{ik}-D+1}^{()} \sum_{i=j_{ik}+s-j_{sa}^{ik}}^{()}$$

$$\sum_{i=1}^{n} \sum_{j_{ik}^{ik}+1}^{()} \sum_{n_{is}+k}^{()} (n_{is}+n+k-j_s+1)$$

$$\sum_{i=n_{is}+j_{ik}^{ik}-k-k_1}^{()} \sum_{i=n_{is}+j_{ik}^{ik}-j_i-k_2}^{()}$$

$$\frac{(n_i + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l \leq D - n + 1 \wedge$$

$$D + j_s + s - n < l \leq i \wedge l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} + j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_s + j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)} \dots$$

$$\dots \sum_{(j_i = l_i + 1)}^{(\quad)} \dots$$

$$\dots \sum_{(n_i = n + \mathbb{k})}^{(\quad)} \sum_{(n_i - j_s + 1)}^{(\quad)} \dots$$

$$\dots \sum_{(n_{ik} = n - j_{ik} + 1)}^{(\quad)} \sum_{(n_s = n - j_i + 1)}^{(\quad)} \dots$$

$$\dots \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \dots$$

$$\dots \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \dots$$

$$\dots \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \dots$$

$$\dots \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \dots$$

$$\dots \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \dots$$

$$\dots \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \dots$$

$$\dots \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \dots$$

$$\dots \sum_{k=l}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)} \dots$$

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$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_i)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1}^{()} \sum_{(n_s=n_{ik}+j_i-k_2)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - j_{sa}^{ik})!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s - j_{sa}^{ik} - j_{ik} - s - k_1 - j_{sa}^{ik})!} \cdot \frac{(l_s - l + 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_s - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l_i$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s - j_{sa}^{ik} - 1 \leq j_{ik} - j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - l_i + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik}$$

$$D + s - n < l_i \leq D + l_s + s - n - l_i \wedge$$

$$D \geq n < n \wedge l = k_1 = 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^{il} + 1 \wedge j_{sa}^s > j_s^s - 1 \wedge$$

$$s: \{j_s^s, k_1, j_{sa}^{ik}, j_{sa}^s\} \wedge$$

$$s \geq 3 \wedge s = k_1 + k_2 \wedge$$

$$z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{()}$$

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$$\begin{aligned}
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{(n_{ik}+j_{ik}-j_i-l_{k_1})} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)!(n_{is}-n_{ik}-j_{ik}-l_{k_1})!} \cdot \\
 & \frac{(n_i-n_s-1)!}{(j_i-n-1)!(n_{ik}+j_{ik}-n_s-j_i)!} \cdot \\
 & \frac{(n-1)!}{(n_s)!(j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_i+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \cdot \\
 & \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{()}
 \end{aligned}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_i + j_{sa}^{ik} - s}^{(l_s + s - l)} \sum_{(j_i=s+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s=n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - l_s + 1)!} \cdot \\
& \frac{(l_i - l)!}{(n - l)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{l+1} \sum_{(j_s=2)}^{l+1} \\
& \sum_{ik=j_i+j_{sa}^{ik}-s}^{l_i-l+1} \sum_{(j_i=l_s+s-l+1)}^{l_i-l+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1, \dots)}$$

$$\sum_{(l_s+s-l, \dots)} \sum_{(j_{ik}=j_i+j_s, \dots)}$$

$$\sum_{(n_i-j_s+1, \dots)} \sum_{(n_i+l_{ik}, \dots)}$$

$$\sum_{(n_{ik}=n_{is}, \dots)} \sum_{(n_{ik}+j_{ik}-j_i-l_{k_2}, \dots)}$$

$$\frac{(n_i + j_s - j_{sa}^{ik} - j_{ik} - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - l_{k_1} - l_{k_2} - 1)! \cdot (n_i + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq 1 \wedge l_s \leq n - 1 \wedge$$

$$1 \leq j_s - j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_i - n \wedge$$

$$D \geq n \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+l_{ik}}^n \sum_{(n_i+j_s+1)}^{(n_i+j_s+1)}$$

$$\sum_{n_i=n+l_{ik}}^{n_i+j_s-j_{sa}^{ik}} \sum_{(n_{ik}+j_{ik}-j_{sa}^{ik})}^{(n_{ik}+j_{ik}-j_{sa}^{ik})}$$

$$\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - j_{ik} - \mathbb{k}_1 + 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

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$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - j_i - n - l - 1)!}{(n_s - j_i - n - l - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_i + l_{ik} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{\binom{D}{j_s}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{D}{j_s}} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{\binom{D}{j_s}} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{\binom{D}{j_s}} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot
 \end{aligned}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k_1=0}^{(l_s - l + 1) \wedge (j_s - l)} \sum_{k_2=0}^{(j_s - l) \wedge (j_s - l + 1 - k_1)} \sum_{j_s = j_s + j_{sa}^{ik} - 1}^n \sum_{(n_{is} = n + k_1 - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - k_2)}^{(j_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$n - l \neq j_i \wedge l \neq j_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s}^{j_{ik} j_i} = \sum_{k=l}^{(j_s - j_{sa}^{ik} + 1)} \frac{(j_s - j_{sa}^{ik} + 1)!}{(j_s - k)!} \cdot \frac{(l_s + s - l)!}{(l_s - k)!} \cdot \frac{(n_i - j_s + 1)!}{(n_i - n + k - j_s + 1)!} \cdot \frac{(n_i + j_{ik} - k_1)!}{(n_{ik} = n + k_2 - j_{ik} + 1)!} \cdot \frac{(n_{ik} + j_{ik} - j_i - k_2)!}{(n_s = n - j_i + 1)!} \cdot \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_i-l+1)} \sum_{(j_i=l_s+s-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}}^{(n_{ik}+j_{ik}-i-k_2)} \\
 & \sum_{n_{ik}=n+k_2-1}^{(n_s-n-j_i+1)} \\
 & \frac{(n_i - n_s - 1)!}{(j_s - 2)! \cdot (n_s - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\
 & \frac{(n_s - n_s - 1)!}{(n_s - j_i - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \\
 & \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{(j_i=l_i+n-D)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$

$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$

$s > 3 \wedge s = s + 1$

$\mathbb{k}_1 + z = 2 \wedge \mathbb{k}_2 = \mathbb{k}_1 + 1 \Rightarrow$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{\binom{()}{j_i=j_{ik}+s-j_{sa}^{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l - 1)!}{(l_s - l + 1)! \cdot (l - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_s)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}^{(l_s - l + 1)} \\
 & \sum_{j_{ik}=l_s + j_{sa}^{ik} - l + 1}^{n_i + j_{sa}^{ik} - l - s + 1} \sum_{(j_i=j_{ik} + s - j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
 \end{aligned}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{j_s=j_{ik}+j_{sa}^{ik}+1}$$

$$\sum_{n+j_{sa}^{ik}-D-j_{ik}+s-j_{sa}^{ik}}$$

$$\sum_{n_i} \sum_{k} (n_{is}=n+k-j_s+1)$$

$$\sum_{n_i} \sum_{k} (n_s=n_{ik}+j_{ik}-j_i-k_2)$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l \leq D - n + 1 \wedge$$

$$1 \leq j_{ik} - j_{sa}^{ik} - 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_s \leq j_i \leq n \wedge$$

$$j_{ik} - 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=2)}^{(l_i+n-D-s)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{(i=j_{ik}-j_{sa}^{ik})}^{(n_i-j_s)}$$

$$\sum_{n_i=n+k}^{(n_i-j_s)} \sum_{(n_s=n-j_i+1)}^{(n_i-j_s)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}$$

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$$\begin{aligned}
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_i+j_{sa}^{ik}-l-s+1} \binom{(\quad)}{j_i=j_{ik}+s-j_{sa}^{ik}} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_1}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_1)} \\
 & \frac{(n_i-1)!}{(j_s-2)! (n_i-n_{is}-1)!} \cdot \frac{(n_i-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! (n_i-n_{is}-j_{ik}-\mathbb{k}_1)!} \\
 & \frac{(n_i-n_s-1)!}{(j_i-1)! (n_{ik}+j_{ik}-n_s-j_i)!} \cdot \frac{(n_s-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_{ik}-l_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \binom{(\quad)}{j_i=j_{ik}+s-j_{sa}^{ik}} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}^{(\quad)}
 \end{aligned}$$

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$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - l_s + 1)!} \cdot \\
& \frac{(l_s - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{l+1} \sum_{(j_s=2)}^{l+1} \\
& \sum_{i_k=j_i+j_{s\bar{a}}-s}^{l_{ik}+s-l-j_{s\bar{a}}+1} \sum_{(j_i=l_s+s-l+1)}^{l_{ik}+s-l-j_{s\bar{a}}+1} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \sum_{(l_s+l)}^{()} \sum_{(j_{ik}=j_i+j_{sa}^{ik}-s)}^{(j_i=l_{ik})} \sum_{(j_{sa}^{ik})}^{(n_i-j_s+1)} \sum_{(l_{ik})}^{(n_i-j_s+1)} \sum_{(n_i+l_{ik}-j_{ik}-s)}^{(n_i+l_{ik}-j_{ik}-s)} \sum_{(n_{ik}=n_{is}-j_{ik}-l_{k_1})}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \frac{(n_i + j_s - j_{sa}^{ik} - j_{ik} - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(l_i - n_{ik} - l_{k_1} - l_{k_2} - 1)! \cdot (n_i + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq 1 \wedge l_s \leq n - 1 \wedge$$

$$1 \leq j_s - j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n - l_i \leq D + l_s + s - n - 1 \wedge$$

$$D > n \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+l_{ik}}^n \sum_{(n_i+j_s+1)}^{(n_i+j_s+1)}$$

$$\sum_{n_{ik}=n+l_{ik}}^{n_{ik}+j_{ik}-j_{sa}^{ik}} \sum_{(n_{ik}+j_{ik}-j_{sa}^{ik})}^{(n_{ik}+j_{ik}-j_{sa}^{ik})}$$

$$\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 + 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

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$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_{ik})!} \cdot \\
 & \frac{(n_s - j_i - n - l - 1)!}{(n_s - j_i - n - l - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{ik} + l_{ik} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \\
 & \sum_{k=l}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{\binom{()}{j_i=j_{ik}+s-j_{sa}^{ik}}} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{\binom{()}{n_s=n_{ik}+j_{ik}-j_i-l_{k_2}}} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}
 \end{aligned}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_{ik} + n - D - j_{sa}^{ik})} \sum_{(j_s=2)} \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\begin{aligned}
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_s - l)!}{(D + j_s - n - l_i)! \cdot (j_i - l_i)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{j_s=j_s+l-k}^{(j_s+l-k-j_{sa}^{ik}+1)} \frac{(l_s-l+1)!}{(j_s+l-k-j_{sa}^{ik}+1)!} \cdot \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(j_{ik}+1)} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(j_i)} \frac{(j_i - l_i)!}{(j_i - l_i)!} \cdot \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_k-1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k-2)} \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_{ik} + n - D - j_{sa}^{ik} + 1)}^{(l_s - l + 1)} \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{(j_s + j_{sa}^{ik} - 1)} \sum_{(j_i = j_s + j_{sa}^{ik} - 1)}^{(j_s + j_{sa}^{ik} - 1)} \frac{(n_i - \mathbb{k}_1 + 1)!}{(n_i - \mathbb{k}_1 - \mathbb{k}_2 + 1)!} \cdot \frac{(n_i + j_s + j_{sa}^{ik} - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

- $D \geq n < n \wedge l \neq 0 \wedge l_s \leq D - n - 1 \wedge$
- $D + l_s + s - 1 - l_i + 1 - l \leq l - 1 \wedge$
- $1 \leq j_{ik} - j_{sa}^{ik} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$
- $(j_s + s - j_{sa}^{ik}) \leq j_i \leq n$
- $l_{ik} - j_{sa}^{ik} + 1 \leq l \wedge l_{ik} - j_{sa}^{ik} - s = l_{ik} \wedge$
- $D - j_{sa}^{ik} < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$
- $D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$
- $j_{sa}^{ik} = j_{sa}^s - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$
- $s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$
- $s > 3 \wedge s = s + \mathbb{k} \wedge$
- $\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_i-l+1)} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+k_2)}^{(n_{ik}+j_{ik}-i-k_2)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_s - n_s - 1)!}{(n_s - j_i - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$

$D + l_s + s - n - l_i + 1 \leq l \leq i \wedge l - 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i \leq j_i + j_{sa}^{ik} - 1 \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$

$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa}^{ik} = j_{sa}^l - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}^i\} \wedge$

$s = 3 \wedge s = \dots + \mathbb{k} \wedge$

$\mathbb{k}_z: \dots = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-l-s+1}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{\binom{()}{j_i=j_{ik}+s-j_{sa}^{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
& \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - \mathbf{n} - 1)! \cdot (n - j_i)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + \mathbf{n} - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
& \sum_{j_{ik}=\mathbf{l}_i+\mathbf{n}+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=\mathbf{n}_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq i - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz \mathcal{S}_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} - 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=0}^{l_s - l} \sum_{l_{ik} = l_{ik} + n - D - j_{sa}^{ik}} \binom{l_s - l + k}{k} \sum_{j_{ik} = j_{ik} + j_{sa}^{ik} - 1}^{j_{ik} + j_{sa}^{ik} - 1} \binom{j_{ik} + j_{sa}^{ik} - 1}{j_{ik} + j_{sa}^{ik} - 1} \sum_{n_i = n + k}^{n_i - j_s + 1} \sum_{n_{is} = n + k - j_s + 1}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1}^{(n_s = n_{ik} + j_{ik} - j_i - k_2)} \binom{n_i - j_s + 1}{n_i - j_s + 1} \binom{n_s}{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \binom{n_s}{n_s = n_{ik} + j_{ik} - j_i - k_2} \cdot \frac{(n_i - n - k_1 - k_2)! \cdot (j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D - n < l \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq i - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=1}^{l_s-l+1} \sum_{j_s=2}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=l_{ik}+n}^{l+1} \sum_{j_i=j_{ik}+s-j_{sa}^{ik}}$$

$$\sum_{n_{ik}+k}^{n_{ik}+k} \sum_{n_{is}=n+k-j_s+1}^{n_{is}+k}$$

$$\sum_{n_{ik}=k_2-j_{ik}+1}^{n_{ik}+j_{ik}-j_i-k_2} \sum_{(n_s=n-j_i+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{()} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_k}^{()} \sum_{(n_{ik}=n_{is}+j_{ik}-j_i)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{sa}^{ik} - l_k - l_s - j_{sa}^s)!}{(n_i - n - l_k - l_s - j_{sa}^{ik} - j_{sa}^s)! \cdot (n_{is} + j_{sa}^{ik} - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$((D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_k \wedge$$

$$l_i \leq l_s - n) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$l_i \leq D + s - n) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S j_{sa}^{ik} = \sum_{k=l}^{\lfloor j_{sa}^{ik} \rfloor} \sum_{j_s=0}^{(j_{sa}^{ik}+1)} \sum_{j_{i-s}^{ik-s}}^{(l_s+s-l)} \sum_{j_{ik-j_s}}^{(s+1)} \sum_{n_i=n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{(n_{is}=n+\mathbb{k}-j_s+1)} \sum_{n_{is}+j_{ik}-\mathbb{k}_1}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{(n_s=n-j_{i+1})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = 2)}^{(l_s - l + 1)} \\
 & \sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_{ik} - l + 1} \sum_{(j_{i_s} = s - l + 1)}^{(l_i - l + 1)} \\
 & \sum_{n = n + k}^n \sum_{(n_{is} = n_{is} + 1)}^{(n_{is} + 1)} \\
 & \sum_{(n_{ik} + k_2 - j_{ik} = n_{ik} + j_{ik} - j_i - l_{ik})}^{n_{is} + j_s - j_{ik} = (n_{ik} + j_{ik} - j_i - l_{ik})} \\
 & \sum_{(n_{ik} + k_2 - j_{ik} = n_{ik} - j_i + 1)}^{(n_{ik} - j_i + 1)} \\
 & \frac{(n_{is} - n_{is} - 1)!}{(n_{is} - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{is} - k_1 - 1)!}{(j_{ik} - n_{is} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
 & \sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{()}
 \end{aligned}$$

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$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=s+1)}^{(l_s+s-l)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_i=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+l_{k_2}-j_i-l_{k_2})}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - j_s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s - j_{sa}^{ik} - j_{ik} - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_{k_1} - l_{k_2} - n - l_i)!}{(D + j_s - n - l_i)! \cdot (n - j_i)!}$$

$$\left((D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge \right.$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_i \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq (D + s - n) \vee$$

$$(D \geq n < n \wedge l \neq i \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n)$$

$$(D > n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

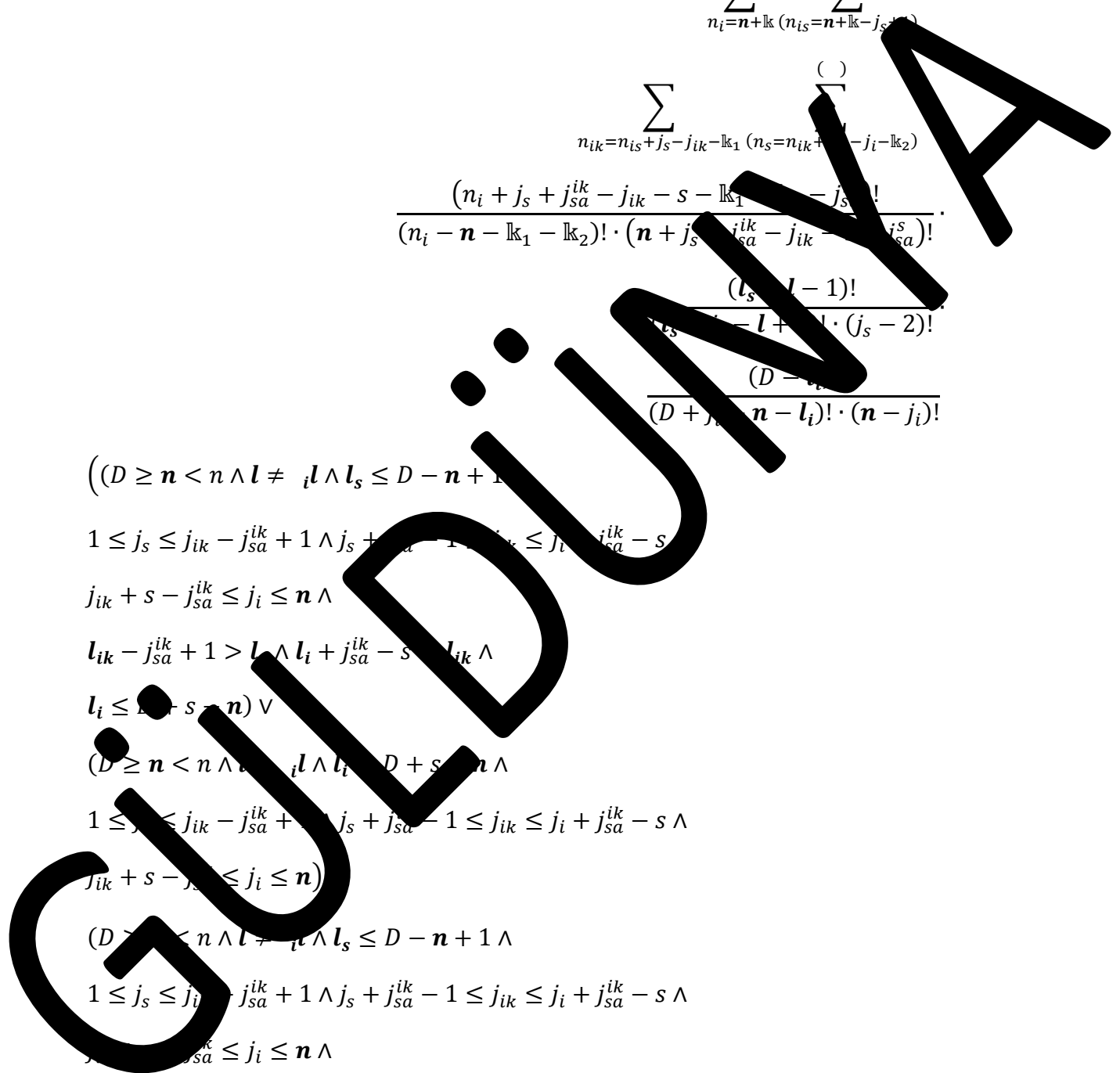
$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$l_i \leq (D + s - n) \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$



$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik})} \frac{(l_s+i_{ik}-1) \cdot (l_i-1)}{j_{ik}^{l_s+l_{ik}+1} (j_i=j_{ik}+s-1)} \sum_{n_i=n+l}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \frac{(n_{is}+j_s-j_{ik}-1) \cdot (n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}{\sum_{n_{ik}=n_{is}-j_{ik}+1}^{(n_{is}+j_s-j_{ik}-1)} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

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$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{ik}^{ik})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}} \sum_{(n_{is}+j_{ik}-i-k_2)} \\
 & \sum_{n_{ik}=n+k_2-1} \sum_{(n_s=n-j_i)} \\
 & \frac{(n_i - n_s - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \\
 & \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)}
 \end{aligned}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_i+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)} \frac{(n_i+j_s+j_{sa}^{ik}-j_{ik}-s-\mathbb{k}_1-\mathbb{k}_2-j_{sa}^s)!}{(n_i-n-\mathbb{k}_1-\mathbb{k}_2)! \cdot (n+j_s+j_{sa}^{ik}-j_{ik}-s-j_{sa}^s)!} \cdot \frac{(l_i-l-1)!}{(l_s-j_s-l-1)! \cdot (l_i-2)!} \cdot \frac{(D-l_i)!}{(D+j_i-l_i-l)! \cdot (n-j_i)!}$$

$$(D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1)$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - 1 > l_s \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l \neq i \wedge l_i \leq D - n + 1)$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1)$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$l_i \leq D + s - n) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$\begin{aligned}
 f_z \mathcal{S}_{j_s, j_{ik}, j_i} &= \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
 &\sum_{n_i=n}^n \sum_{n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(l_s-j_s+1)} \sum_{n_{ik}+j_{ik}-\mathbb{k}_2}^{(l_i-j_i+1)} \\
 &\frac{(n_i - n_{is})!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \\
 &\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \\
 &\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}
 \end{aligned}$$

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$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_s-j_i-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - j_s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - j_i - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - n - l)!}{(D + j_s - n - l)! \cdot (n - j_i)!}$$

$$((D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1) \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \wedge$$

$$(D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1) \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - j_{sa}^{ik} + 1 > l_s \wedge$$

$$(D + s - n < l_i \leq D + l_s + s - n - 1)) \wedge$$

$$n - l_s - l \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(l_s+s-l)} \sum_{j_{ik}=l_{ik}+n-D}^{j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)} \sum_{n_i=n+1}^n \sum_{(n_i+j_s-j_{ik}-\mathbb{k}_1)}^{(n_{ik}+j_{ik}-j_{ik}-\mathbb{k}_1)} \sum_{(j_{ik}+1)}^{(n-j_i+1)} \sum_{(n_{ik}+1)}^{(n-j_i+1)} \frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - j_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

GÜLDENWA

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_1})}$$

$$\frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!}$$

$$\frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (j_s-n_{is}-j_{ik}-l_{k_1})!}$$

$$\frac{(n_s-n_{ik}-n_s)!}{(j_i-l_{k_1}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!}$$

$$\frac{(n_i-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!}$$

$$\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s-l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!}$$

$$\frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!}$$

$$\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!}$$

$$\sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{(j_i=l_i+n-D)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$(D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1)$$

$$(D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1)) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k}_1 = 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, \dots, \mathbb{k}_2, \dots, a\} \wedge$$

$$s > 3 \wedge j_{sa}^s > s + \mathbb{k}_1 \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l} \sum_{\binom{()}{j_s=2}}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_1})} \\
 & \frac{(n_i-1)}{(j_s-2) \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1) \cdot (j_s-n_{is}-j_{ik}-l_{k_1})!} \cdot \\
 & \frac{(n_s-n_s)}{(j_i-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \cdot \\
 & \frac{(n_i-1)!}{(n_s) \cdot (j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_{ik}-l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} +
 \end{aligned}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

GÜLDÜZMAYA

$$\frac{\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} (n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1 - 1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - 1)!}{(j_s - l_s + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s)! \cdot (j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} - j_i - l_i)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(\)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-k_2)}^{(\)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$(D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = s + k \wedge$$

$$k_2 = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\frac{\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} (n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - 1)!}{(j_s - l_s + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s)! \cdot (j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} - j_i - l_{ik} - s)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\frac{\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} (n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - 1)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - j_s - 1)! \cdot (j_{ik} - j_s - l_s + 1)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_{ik} - l_i - s)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_i + n - D - s + 1)} \\
 & \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{()} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$$((D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\}$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - 1)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - j_s - 1)! \cdot (j_{ik} - j_s - 1)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_{ik} - l_i - s)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_i + n - D - s + 1)} \\
 & \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{()} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{()} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$$D \geq n < n \wedge l = i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned}
 & \sum_{k=i}^{(\cdot)} \sum_{l \binom{(\cdot)}{j_s=j_1}} \\
 & \sum_{j_{ik}=j_{sa}^{lk}}^{(l_i - i l + 1)} \sum_{(j_i=s)} \\
 & \sum_{l_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-\mathbb{k}_2} \\
 & \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(l_i + j_{sa}^{ik} - j_i - l_{ik})! \cdot (j_i - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot
 \end{aligned}$$

$$\sum_{k=i}^{(\cdot)} \sum_{l \binom{(\cdot)}{j_s=1}}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j_i=s)}^{(\cdot)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{(\cdot)} \sum_{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}^{(\cdot)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(D - l_i)!}{(D + s - n - \mathbb{k}_1 - \mathbb{k}_2)! (n - s)!}$$

$$D \geq n < n \wedge l = i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik}$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=1}^n \sum_{(j_s=1)}^{(\cdot)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_i-l+1)} \sum_{(j_i=s)}^{(\cdot)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^n \binom{()}{j_{sa}^{ik}}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \binom{()}{(j_i=s)}$$

$$\sum_{n_i=1}^n \binom{()}{(n_{ik}=n_i - j_{ik} - \mathbb{k}_1 + 1)} \sum_{n_s=n_{ik} + j_{ik} - j_i - \mathbb{k}_2}$$

$$\frac{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l_i \wedge l_s \wedge D - n + 1 \wedge$$

$$1 \leq j_{ik} - j_{sa}^{ik} + j_s \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{sa}^{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > j_{sa}^{ik} + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fzS_{j_s, j_{ik}, j_i} = \sum_{k=1}^i \sum_{l=1}^{(j_s)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}-i^{l+1}} \sum_{(j_i=j_{ik}+s-1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_{k_2}}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}$$

$$\frac{(n_i - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - 2)! \cdot (n_i - j_{ik} - l_{k_1} - 1)!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_{ik} - j_i - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_i - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^i \sum_{l=1}^{(j_s)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j_i=s)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}-l_{k_1}+1)}^{(j_s)} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_{k_2}}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$(D \geq n < n \wedge l = i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l = l \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n) \vee$$

$$(D \geq n < n \wedge l = l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$l_i \leq D + s - n) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k}_1$$

$$\mathbb{k}_1 \cdot z = 2 \wedge \mathbb{k}_1 = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=1}^n \sum_{l=1}^{(j_s)} \binom{(\cdot)}{j_s}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_i - l_s)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{(j_s=1)}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{()} \sum_{(j_i=s)}$$

$$\sum_{n_i=l_i+\mathbb{k}}^{()} \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}^{()}$$

$$\frac{(n_i + j_s - j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - j_i - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n - n \wedge l_s > D - \dots + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} - s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + \dots = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{j_i+j_{s_a}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_{ik}+s-l-j_{s_a}^{ik}+1)}$$

$$\sum_{n_i=n}^n \sum_{(n_i=n+j_s+1)}^{(n-j_s+1)}$$

$$\sum_{(j_{ik}=j_i+1)}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(j_i=n-j_i+1)}^{(n_{ik}+j_{ik}-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is})}{(j_s - 2) \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 + 1)!}{(j_{ik} + j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{s_a}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{s_a}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=l_{ik}+s-l-j_{s_a}^{ik}+2)}^{(l_i-l+1)}$$

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$$\frac{\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n - j_i - 1)!}{(n_s - j_i - n - j_i - 1)!} \cdot \frac{(n - j_s - l - 1)!}{(n - j_s - 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_s - l_{ik} - s)!}{(j_{ik} + l_{k_1} - j_i - l_{k_1})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \sum_{k=l}^{\binom{()}{}} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{\binom{()}{}}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{lk}-s} \sum_{(j_i=l_i+n-D)}^{(l_{ik}+s-l-j_{sa}^{lk}+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{\binom{()}{}}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_{zS} j_i = \sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}$$

$$\sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-1}^{j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_s=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\begin{aligned}
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=0}^{l_i - l} \sum_{j_s = j_{ik} + l_s - k}^{n - j_{ik} - l_s - k} \frac{(l_i - l + 1)!}{(l_i - l - k)!} \cdot \\
 & \sum_{j_{ik} = l_s + k}^{n - l_s - k} \frac{(j_{ik} - l_s - D - 1)!}{(j_i - l_s - l + 1)!} \cdot \\
 & \sum_{n_i = n + k}^{n - j_{ik} - k} \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \cdot \\
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n - j_{ik} - k_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - k_2)} \cdot \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot
 \end{aligned}$$

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$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{(j_i=l_i+n-p)}^{(l_s+s-l)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-1}^{()} \sum_{(n_{is}=n_{ik}+j_{ik}-j_i)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - \dots - \mathbb{k}_1 - \dots - j_{sa}^s)!}{(n_i - n - \dots - \mathbb{k}_1 - \mathbb{k}_s)! \cdot (n_{is} + j_{sa}^{ik} - \dots - j_s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - \dots + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l_s > D - n - 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq \dots + j_{sa}^{ik} - s \wedge$

$j_{ik} + \dots - j_{sa}^{ik} \leq j_i \leq \dots \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = \dots \wedge l_i + j_{sa}^{ik} - s > l_s \wedge$

$D \geq \dots < n \wedge I = \mathbb{k}_1 = 0 \wedge$

$j_{sa}^{ik} = j_{sa}^s - 1 \wedge j_{sa}^s > j_s^s - 1 \wedge$

$s: \{j_s^s, \dots, \mathbb{k}_1, j_{sa}^s, \dots, j_{sa}^s\} \wedge$

$s > 3 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}; z = 2, \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_1)} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)!(j_s-n_{is}-j_{ik}-k_1)!} \cdot \\
 & \frac{(n_i-1)!}{(j_i-1)!(n_{ik}+j_{ik}-n_s-j_i)!} \cdot \\
 & \frac{(n_i-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_i+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=l} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)}
 \end{aligned}$$

GÜLDÜZMAYA

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - 1)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_i - s)!}{(j_{ik} + l_i - 1)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{(\quad)} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{(\quad)} \\
 & \sum_{j_{ik} = l_i + n + j_{sa}^{ik} - D - s}^{l_{ik} - l + 1} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{(\quad)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^n \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{(n_i - j_s + 1)} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned} &= \sum_{j_s=2}^{(j_s)} \sum_{j_{ik}=j_s-1}^{(j_s+l_s-l_{ik})} \sum_{j_i=l_i+l-1}^{(l_i+l+1)} \sum_{j_{sa}^{ik}=j_i+n-D-s-1}^{(j_i+l+n-D)} \\ &= \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\ &= \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \end{aligned}$$

GÜLDENWA

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

$$\sum_{n+l_k}^n \sum_{(n_{is}=n+l_k+1)}$$

$$\sum_{n_{ik}+l_{k_2}-j_{ik}}^{n_{is}+j_s-j_{ik}-l} \sum_{(j_i=j_{ik}+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_1})}$$

$$\frac{(n_{is}-n+l_{k_1}-1)!}{(j_{ik}-j_i-1)! \cdot (n_{is}-j_s+1)!}$$

$$\frac{(n_{is}-n+l_{k_1}-1)!}{(j_{ik}-j_i-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-l_{k_1})!}$$

$$\frac{(n_{ik}-n_s-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!}$$

$$\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!}$$

$$\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!}$$

$$\frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - \mathbb{k}_1 - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_s \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}^i\} \wedge$$

$$s: 3 \wedge s = \mathbb{k}_1 + \mathbb{k}_2 \wedge$$

$$\mathbb{k}_z: \mathbb{k}_z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_i+n-D-s)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - n - 1)! \cdot (n - j_i)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa} - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (l_i + j_{sa} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \\
 & \sum_{j_{ik}=j_s+l_{ik}-l_s}^{(l_i-l+1)} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}
 \end{aligned}$$

GÜLDENKA

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=0}^{(l_{ik} - l - j_{sa}^{ik} + 2)} \sum_{j=0}^{D - s + 1}$$

$$\sum_{j_i = j_s + l_{ik} - l_s}^{()} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}$$

$$\sum_{n_i = n + k}^n \sum_{(n_i = n + k - j_s + 1)}^{(n_i - j_s + 1)}$$

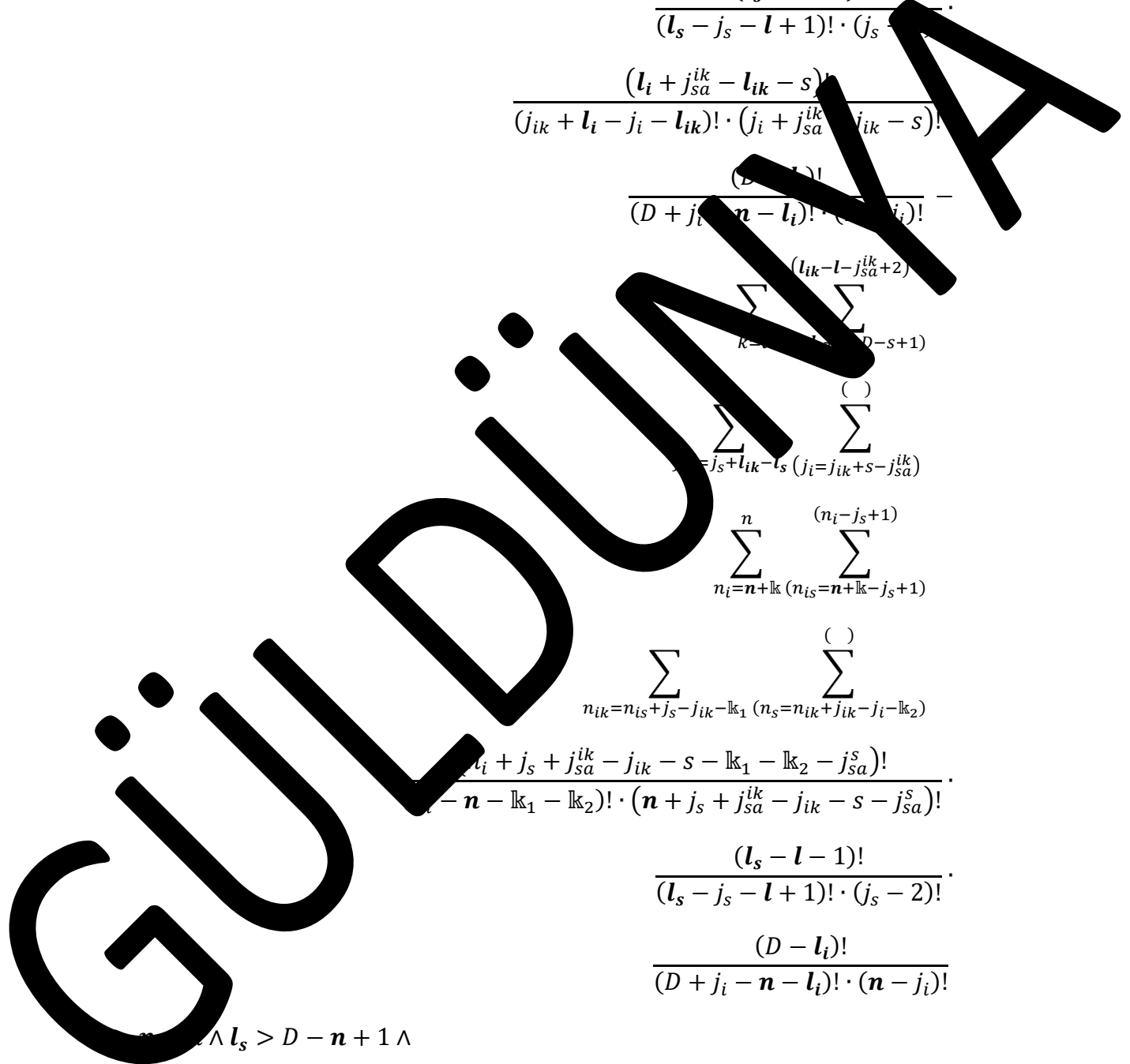
$$\sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - k_2)}^{()}$$

$$\frac{(l_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

- $n_{ik} \wedge l_s > D - n + 1 \wedge$
- $2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$
- $j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$
- $l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$



$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

GÜLDÜNYA

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{(j_s = \dots + n - D - s)}$$

$$j_{ik} = j_s + \dots + (j_i = l_i + n - D)$$

$$\dots + \mathbb{k} (n_{is} = n + \mathbb{k} - j_s + 1)$$

$$n_{ik} = \dots - j_{ik} - \mathbb{k}_1 \dots (n_{ik} + j_{ik} - j_i - \mathbb{k}_2)$$

$$n_{ik} = \dots - j_{ik} + 1 \quad (n_s = n - j_i + 1)$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_s+l_{ik}-l_s}^{(l_i-l+1)} \sum_{(j_i=j_{ik}+s-j_{ik}^s)}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}}^{(n_i+j_{ik}-l_i-l_{k_2})} \sum_{(n_{is}+j_s-j_{ik})}^{(n_i+j_{ik}-l_i-l_{k_2})} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{(n_i+j_{ik}-l_i-l_{k_2})} \sum_{(n_s=n-j_i+1)}^{(n_i+j_{ik}-l_i-l_{k_2})} \\
 & \frac{(n_i-n_{k_1}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \\
 & \frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-l_{k_1})!} \\
 & \frac{(n_i-n_s-1)!}{(n_{ik}+j_{ik}-n_s-j_i)!} \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_s+l_{ik}-l_s}^{()} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

GÜLDÜZYA

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i \leq j_i + j_{sa}^{ik} \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik}$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$

$s > 3 \wedge s = s + 1 \wedge$

$\mathbb{k} : z = 2 \wedge \dots = \mathbb{k}_1 + \dots \Rightarrow$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - 1)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l - 1)!}{(l_s - j_s - l + 1)! \cdot (l_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_i - s)!}{(j_{ik} + l_i - l - 1)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{(\cdot)} \\
& \sum_{j_{ik} = j_i + j_{sa}^{ik} - s}^{(l_{ik} + s - l - j_{sa}^{ik} + 1)} \sum_{(j_i = l_i + n - D)}^{(n_i - j_s + 1)} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{(\cdot)} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{S_{j_s, \dots, j_i}} = \sum_{k=l}^{()} (j_s = j_{ik} + l_s - l_{ik})$$

$$j_{ik} = n + j_{sa}^{ik} - D - 1 \quad (l_i - l + 1) \quad \sum_{(j_i = l_i + n - D)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}$$

$$\sum_{(j_{ik}=j_i+j_{sa}^{ik}-l_{ik}-s-l)} \sum_{(l_s=l_{ik}-j_{ik}+j_i-D)}$$

$$\sum_{(n+l)} \sum_{(n+l-k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{(n_{ik}=n_{is}-j_{ik}-k_1)} \sum_{(n_{ik}+j_{ik}-j_i-k_2)}$$

$$\frac{(n_i + j_{sa}^{ik} - j_{ik} - k_1 - k_2 - j_{sa}^s)!}{(k_1 - 1)! \cdot (n + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_i + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$\begin{aligned}
 f_z S_{j_s, j_{ik}, j_i} &= \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \\
 &\quad \sum_{j_{ik}=j_s+l_{ik}-l_s}^{(l_i-l+1)} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)} \\
 &\quad \sum_{n_i=n+l_s}^n \sum_{(n+l_s-j_s+1)}^{(n+l_s-j_s+1)} \\
 &\quad \sum_{i_{ik}+1}^{n_i+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{ik}+j_{ik}-j_{ik}-\mathbb{k}_1)}^{(n_{ik}+j_{ik}-j_{ik}-\mathbb{k}_1)} \\
 &\quad \frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - j_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} + j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \\
 &\quad \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 &\quad \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \\
 &\quad \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \\
 &\quad \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \\
 &\quad \sum_{j_{ik}=j_s+l_{ik}-l_s}^{()} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}
 \end{aligned}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l_i - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = \mathbb{k}_1 + \mathbb{k}_2 \wedge$$

$$\mathbb{k}_z: \mathbb{k}_z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - 1)!}{(j_s - l_s + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + 1 - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_i-l+1)} \sum_{(j_i=l_s+s-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{j_s=1}^{(j_i - j_{ik} - 1)} \sum_{j_{sa}^{ik}=1}^{(j_{ik} - j_s - j_{sa}^{ik} + 1)} \\
& \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{j_i=l_i+n-D}^{(n)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(j_i+j_s+j_{sa}^{ik}-j_{ik}-s-\mathbb{k}_1-\mathbb{k}_2-j_{sa}^s)!} \\
& \frac{(n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}{(l_s - l - 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$j_i \geq n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$

$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$

$s > 3 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

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$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=1}^{\mathbb{k}} \sum_{(j_s = \dots + n - D)}^{k - j_{sa}^{ik} + 1}$$

$$\sum_{l_s + j_{sa}^i - l}^{l_s + j_{sa}^i - 1} \sum_{(j_{sa}^{ik} - D - \dots = j_{ik} + l_i - l_{ik})}^{(j_{sa}^{ik} - D - \dots + 1)}$$

$$\sum_{n_i = \dots}^n \sum_{\mathbb{k} (n_{is} = n + \mathbb{k} - j_s + 1)}$$

$$\sum_{n_{is} = \dots}^{j_{ik} - \mathbb{k}_1} (n_{ik} + j_{ik} - j_i - \mathbb{k}_2)$$

$$\sum_{n_{ik} = \dots}^{j_{ik} - \mathbb{k}_2 - j_{ik} + 1} (n_s = n - j_i + 1)$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+l_i-l)}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_i+j_{ik}-j_i-k_2)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - 1)!}$$

$$\frac{(n_s - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\cdot)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!}$$

$$\frac{(D - l_s)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-l-s+1}^{(l_i+n-D-s)} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(\cdot)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - l_s + 1)!}$$

$$\frac{(n - l_i)!}{(n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=0}^{\infty} \sum_{i_s=l_i+n-D-s+1}^{\infty}$$

$$\sum_{ik=j_s+j_{sa}^{ik}-1}^{l_{sa}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{lk}-j_{ik}-l_{ik}}$$

$$\sum_{n+l_k}^{(n_i-j_s+1)} \sum_{(n+l_k-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}-j_{ik}-l_{k_1}} \sum_{(n_{ik}+j_{ik}-j_i-l_{k_2})}$$

$$\frac{(n_i + j_s - j_{sa}^{ik} - j_{ik} - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - l_{k_1} - l_{k_2} - j_{sa}^s)! \cdot (n_i + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s = D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^s - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n$$

$$l_{ik} - l_s + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_s - l_s + 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, l_{k_1}, j_{sa}^{ik}, l_{k_2}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$l_{k_z}: z = 2 \wedge k = l_{k_1} + l_{k_2} \Rightarrow$$

$$fz_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=l_{ik}+n+s-D-j_{ik})}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$n_{is}+j_s-j_{ik} \dots (n_{is}+j_s-j_{ik}-l_{k_2})$$

$$n_{ik}=n+l_{k_2}-j_{ik}+1 \dots (n_s=n-j_i+1)$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!}$$

$$\frac{(n_s - n_s - 1)!}{(n_s - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \sum_{(j_i=l_s+s-l+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\frac{\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} (n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1 - 1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-k_2)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z = j_{ik}, j_i = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\begin{aligned}
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{l_s-l+1} \sum_{(j_s=n-D)}^{l_s-l+1} \\
 & \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{l_s-l+1} \\
 & \sum_{(n_{is}=n+l_k-j_s+1)}^{j_s+1} \\
 & \sum_{(n_{ik}+j_{ik}-j_i-l_{k_2})}^{n_{ik}+l_k-j_{ik}-l_{k_1}} \\
 & \sum_{(n_s=n-j_i+1)}^{n_{ik}=l_{k_2}-j_{ik}+1} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot
 \end{aligned}$$

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$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+l_i-l)}^{(\cdot)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_k} \sum_{(n_{ik}+j_{ik}-j_i-l)}^{(\cdot)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - l_k - l_i - j_{sa}^s)!}{(n_i - n - l_k - l_i - j_{sa}^s)! \cdot (n_{is} + j_{sa}^{ik} - l_k - j_{sa}^s)!}$$

$$\frac{(l_k - l - 1)!}{(l_i - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n \wedge l_i \wedge l_i \leq D - n$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq l_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + j_{sa}^{ik} \leq j_i \leq l_i \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_i \wedge l_i + j_{sa}^{ik} - s = l_i \wedge$$

$$D \geq n < n \wedge l_i = l_k = 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^l - 1 \wedge j_{sa}^s > j_{sa}^l - 1 \wedge$$

$$s: \{j_{sa}^s, l_k, j_{sa}^{ik}, j_{sa}^s\} \wedge$$

$$s > 3 \wedge s = l_k + 1 \wedge$$

$$l_k = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{(j_s=l_s+n-D)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_1})} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (j_s-n_{is}-j_{ik}-l_{k_1})!} \cdot \\
 & \frac{(n_{ik}+j_{ik}-n_s-j_i)!}{(j_i-l_{k_1}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \cdot \\
 & \frac{(n_s-j_i-n-1)! \cdot (n-j_i)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s-l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - 1)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l - 1)!}{(l_s - l + 1)! \cdot (l - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_{ik} + n - D - j_{sa}^{ik} + 1)} \\
& \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1} \sum_{(j_i = j_{ik} + l_i - l_{ik})}^{()} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f^{z=2} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{k=j_i+l_{ik}-l_i}^{(l_i-l+1)} \sum_{(j_i=l_i+n-D)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{()}$$

$$\sum_{j_i=j_i+l_{ik}}^{()} \sum_{()}^{()}$$

$$\sum_{n+l}^{(n_i-j_s+1)} \sum_{(n_i+l-k-j_s+1)}^{()}$$

$$\sum_{n_{ik}=n_{is}-j_{ik}-k_1}^{()} \sum_{(n_{ik}+j_{ik}-j_i-k_2)}^{()}$$

$$\frac{(n_i + j_s - j_{sa}^{ik} - j_{ik} - k_1 - k_2 - j_{sa}^s)!}{(n_i + j_s - j_{sa}^{ik} - j_{ik} - k_1 - k_2)! \cdot (n_i + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$\mathbb{k}_2: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^{\mathcal{S}_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n-l_i}^n \sum_{(j_s=j_s+1)}^{(j_s+1)}$$

$$\sum_{i_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{ik}+j_{ik}-j_{ik_2})}^{(n_{ik}+j_{ik}-j_{ik_2})}$$

$$\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 + 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{i_s}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_1)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - \dots)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - \dots - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i + j_{sa}^{ik} - 1 \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge$$

$$s = (j_{sa}^s, \dots, \mathbb{k}_1, \dots, \mathbb{k}_2, j_{sa}^s) \wedge$$

$$s > 3 \wedge s = s + \mathbb{k}$$

$$\mathbb{k}_z : z = \dots \wedge \mathbb{k} = \mathbb{k}_1 + \dots \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_{ik}+s-l-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\frac{\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} (n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1 - 1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-k_2)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$j_{ik} - j_{sa}^{ik} - j_i = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)}^{(l_s - l + 1)}$$

$$\sum_{j_{ik} = l_{ik} + n - D}^{ik - l + 1} \sum_{(j_i = j_{ik} + l_i - l_{ik})}^{()}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=l}^{()} \sum_{j_s=j_{ik}+j_{sa}^{ik}+1}^{()} \sum_{j_{ik}=l_{ik}+n-j_i}^{j_{ik}-l} \sum_{j_i=j_{ik}+l_i-l_{ik}}^{()} \sum_{n_i=n+l_k}^{()} \sum_{n_{is}=n+l_k-j_s+1}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_{k_2}}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_{k_2}}^{()} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq l_i \wedge l_i \leq D - n + 1 \wedge$$

$$1 \leq j_i \leq j_{ik} - j_{sa}^{ik} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_s \leq j_i \leq n \wedge$$

$$-j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = l_i > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{j_i+j_{sa}^{ik}-s} \frac{(l_{ik}+j_{sa}^{ik}-j_{sa}^{ik}+1)}{(j_i-s)} \sum_{n_i=n+l_s}^{(n_i-j_s)}$$

$$\sum_{n_{is}=n-j_{ik}-k_1}^{n_i-j_s} \sum_{n_s=n+l_s-1}^{(n_s-n-j_i+1)} \frac{(n_i-n_{is}-1)!}{(j_s-1)! \cdot (n_i-n_{is}-j_s+1)!}$$

$$\frac{(n_{ik}-k_1-1)!}{(j_{ik}+j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-k_1)!}$$

$$\frac{(n_{ik}-n_s-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!}$$

$$\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!}$$

$$\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!}$$

$$\frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!}$$

$$\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} +$$

$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\cdot)}$$

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$$\begin{aligned}
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}-l+1} \sum_{(j_i=l_{ik}+s-l-j_{sa}^{ik}+2)}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n+l_{k_1}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_1})} \\
 & \frac{(n_i-1) \cdot (n_i-n_{is}+1)!}{(j_s-2) \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1) \cdot (n_{is}-n_{ik}-j_{ik}-l_{k_1})!} \cdot \\
 & \frac{(n_s-n_{ik}-n_s-j_i)!}{(j_i-1) \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \cdot \\
 & \frac{(n_s-j_i-n-1)! \cdot (n-j_i)!}{(n-1)!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_i+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \cdot \\
 & \sum_{k=l}^{\binom{()}{}} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{\binom{()}{}} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \sum_{(j_i=s+1)}^{\binom{()}{}} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{\binom{()}{}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{\binom{()}{}}
 \end{aligned}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{(\cdot)} \sum_{j_{ik} = j_{sa}^{ik} + 1}^{j_i + j_{sa}^{ik} - s} \sum_{(j_i = s + 1)}^{(l_s + s - l)} \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l - s)!}{(j_{ik} + l_i - j_i - l_{ik} - s)! \cdot (j_i + j_{sa}^{ik} - s)!} \cdot \\
& \frac{(l_i - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{j_i=1}^{\sum_{j_s=j_{ik}+l_s-l_{ik}}} \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{j_i=l_s+s-l+1}^{(l_i-l+1)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}$$

$$\sum_{j_{ik}=j_i-l_{ik}}^{(l_s+s-l)} \sum_{(j_s=s+1)}$$

$$\sum_{n+l_k}^{(n_i-j_s+l)} \sum_{(n+l_k-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}-j_{ik}-l_{k_1}} \sum_{(n_{ik}+j_{ik}-j_i-l_{k_2})}$$

$$\frac{(n_i + j_{sa}^{ik} - j_{ik} - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - l_{k_1} - l_{k_2} - j_{sa}^s)! \cdot (n_i + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq l \wedge l_s \leq n - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} < j_i \leq n$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s < n \wedge$$

$$l_i \leq n \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

$$\sum_{n_i=n}^n \sum_{(n_i+n_s=j_s+1)}^{(n-j_s+1)}$$

$$\sum_{(n_{is}+j_s-j_{ik}-\mathbb{k}_1)}^{(\mathbb{k}_1)} \sum_{(n_{ik}+j_{ik}-\mathbb{k}_2)}^{(\mathbb{k}_2)}$$

$$\sum_{(j_{ik}+1)}^{(n-j_{ik}+1)} \sum_{(n-j_i+1)}^{(n-j_i+1)}$$

$$\frac{(n_i - n_{is})!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} + j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_1)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s \geq l_i \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge$$

$$s = (j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^s) \wedge$$

$$s > 2 \wedge s = s + \mathbb{k}$$

$$\mathbb{k}_z: z = \dots \wedge \mathbb{k} = \mathbb{k}_1 + \dots \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\frac{\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} (n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1 - 1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa} - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (l_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + 1 - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-k_2)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z S_{j_s, k, j_i} = \sum_{k=l}^{(l_{ik} - l - j_{sa}^{ik} + 2)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{(l_i-l+1)} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - l_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=1}^{(l_{ik} - j_{sa}^{ik} + 2)} \sum_{(j_s=2)}^{(j_s)} \sum_{(j_i)}^{(j_i)} \sum_{(j_{ik} + l_{ik} - l_s)}^{(j_i = j_{ik} + s - j_{sa}^{ik})} \sum_{n_i = n + k}^{(n_i - j_s + 1)} \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1}^{(n_s = n_{ik} + j_{ik} - j_i - k_2)} \sum_{(n_i - n - k_1 - k_2)}^{(n_i - n - k_1 - k_2)} \frac{(j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D > n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_i - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{(j_s=2)}^{(l_s-l)} \sum_{(l_i=l+1)}^{(l_s-l)} \sum_{j_{ik}=j_{ik}-l_s}^{(n)} \sum_{n_i=n+k_1}^{(n_i-j_s+1)} \sum_{n_{is}=j_{is}-j_{ik}-k_1}^{(n_{ik}+j_{ik}-j_i-k_2)} \sum_{n_{ik}=k_2-j_{ik}+1}^{(n_s=n-j_i+1)} \frac{(n_i - n_{is} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

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$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j_i=j_{ik+s}-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_s-j_i-l_{k_2})}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - j_s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s - j_{sa}^{ik} - j_{ik} - j_{sa}^{is})!} \cdot \frac{(l_s - l + 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l)!}{(D + j_s - n - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - j_{ik} \leq j_i \wedge j_{sa}^{ik} - s$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - j_{ik} = l_{ik} \wedge$

$D + n < l_i \leq l_s + s - n - 1$

$D > n < n \wedge l_k > 0$

$j_{sa}^{ik} - j_{sa}^{is} - 1 \wedge j_{sa}^{is} - j_{sa}^{ik} - 1$

$\{j_{sa}^{is}, \dots, j_{sa}^{ik}, l_{k_2}, j_{sa}^{is}\} \wedge$

$s > 3 \wedge s = s$

$l_{k_2} \cdot z = z \cdot l_k = l_{k_1} + l_{k_2} \Rightarrow$

$$f_z S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_{ik}+s-l-j_{sa}^{ik}+1)}$$

$$\frac{\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_{ik})!} \cdot \frac{(n_s - j_i - n - l - 1)!}{(n_s - j_i - n - l - 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{ik} - l_{ik} - s)!}{(j_{ik} + l_{ik} - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}-l+1} \sum_{(j_i=l_{ik}+s-l-j_{sa}^{ik}+2)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

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$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - 1)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - j_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik} - j_{sa}^{ik} - s)! \cdot (j_i + j_{sa}^{ik} - s)!}$$

$$\frac{(D - l_i)!}{(n - l_i - 1)! \cdot (n - j_i)!}$$

$$\sum_{l=1}^n \sum_{(j_s=j_{ik}+l_s-l_{ik})}$$

$$(l_{ik}+s-l-j_{sa}^{ik}+1)$$

$$\sum_{k=j_i+j_{sa}^{ik}-s}^n \sum_{(j_i=l_i+n-D)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^n \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_i} \sum_{j_s=j_{ik}+l_s-l_{ik}}^{n_i-j_s+1} \sum_{j_i=l_i+n-D}^{n_i-j_s+1} \frac{(n_i-j_s+1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-k_1)!} \cdot \frac{(n_{ik}-n_s-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!} \cdot \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_{i+1}=j_{i+1}+s-l+1)}^{(l_i-l+1)}$$

$$\sum_{n+l_k}^n \sum_{(n_{is}=n_{i+1}+1)}^{(n_{i+1}+1)}$$

$$\sum_{n_{ik}+l_{k2}-j_{ik}}^{n_{is}+j_s-j_{ik}-l_{k1}} \sum_{(j_{i+1}=j_{i+1}+1)}^{(n_{ik}+j_{ik}-j_i-l_{k1})}$$

$$\frac{(n_{is}-n_{i+1}-l_{k1}-1)!}{(j_{i+1}-j_{i+1}-1)! \cdot (n_{is}-j_s+1)!}$$

$$\frac{(n_{is}-n_{i+1}-l_{k1}-1)!}{(j_{ik}-j_{i+1}-1)! \cdot (n_{i+1}+j_s-n_{ik}-j_{ik}-l_{k1})!}$$

$$\frac{(n_{ik}-n_s-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!}$$

$$\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!}$$

$$\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!}$$

$$\frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_1)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_s \wedge$$

$$D + s - n < l_i \leq D + l_s - j_s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge$$

$$s = (j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^s) \wedge$$

$$s > 2 \wedge s = s + \mathbb{k}$$

$$\mathbb{k}_z: z = \dots \wedge \mathbb{k} = \mathbb{k}_1 + \dots \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - 1)!}{(j_s - l_s + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa} - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (l_i + j_{sa} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + 1 - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}
 \end{aligned}$$

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$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{j_{ik}=l_{ik}}^{l_{ik}+j_{sa}^{ik}-D-s} \sum_{j_i=j_{ik}+s-j_{sa}^{ik}}^{(j_i+l_s-l_{ik})}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{(n_i-j_s+1)}$$

$$\frac{(j_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$n - l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{j_s} \sum_{(j_s=j_{ik})}^{l_{ik}} \frac{(l_i - l + 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\begin{aligned}
 & \sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \frac{(n_i+j_s-j_{ik}-n_{is}+j_{ik}-j_i-k_2)}{\sum_{n_{ik}=n+k_2-j_i-1}^{(n_i-j_s+1)} \sum_{(n_s=n-j_i+1)}^{(n_i-j_s+1)}} \\
 & \frac{(n_i-n_{ik}-1)!}{(j_s-2)! \cdot (n_{is}+j_s+1)!} \\
 & \frac{(n_{is}-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-k_1)!} \\
 & \frac{(n_s-n_s-1)!}{(n_{ik}+j_{ik}-n_s-j_i)!} \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!}
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$

$D + s - n < l_i \leq D + l_s + s - n - 1$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$

$s > 3 \wedge s = s + 1$

$\mathbb{k}: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + 1 \Rightarrow$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{(l_i-l+1)} \sum_{(j_i=l_i+n-D)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l - 1)!}{(l_s - l + 1)! \cdot (l - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_i - s)!}{(j_{ik} + l_i - l_s - 1)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=1}^{(l_{ik} - l - j_{sa}^{ik} + 2)} \sum_{(j_s = l_i + n - D - s + 1)} \\
& \sum_{j_{ik} = j_s + l_{ik} - l_s}^{(l_i - l + 1)} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
\end{aligned}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{i=l_i+n-l_{ik}-s+1}^{(l_{ik}-j_{sa}^{ik}+2)} \sum_{j_{ik}=j_s+l_{ik}-j_i}^{(j_{ik}+s-j_{sa}^{ik})} \sum_{n_i=n+l_{ik}-j_s+1}^{(n-l_i-j_{ik}+1)} \sum_{n_s=n+l_{ik}-j_s+1}^{(n-l_i-j_{ik}-l_{k_1}-l_{k_2})} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq l_i \wedge l \leq D - n + 1 \wedge$$

$$1 \leq j_i < j_{ik} - j_{sa}^{ik} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_s \leq j_i \leq n \wedge$$

$$-j_{ik} - 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = l_{k_1} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=2)}^{(l_i+n-D-s)}$$

$$\sum_{j_{ik}=j_s}^{(l_i-l+1)} \sum_{(j_i=n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+k_1}^{(n_i)} \sum_{(n_i=n+k_2-j_s+1)}^{(n_i)}$$

$$\sum_{n_i=n+k_2-j_{ik}}^{(n_i)} \sum_{(n_s=n-j_i+1)}^{(n_i)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{ik} - k_1 - 1)!}{(j_{ik} + j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)}$$

GÜLDÜZMAYA

$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{(n_{ik}+j_{ik}-j_i-l_{k_1})}$$

$$\frac{(n_i-1)}{(j_s-2) \cdot (n_i-n_{is}+1)!}$$

$$\frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1) \cdot (n_{is}-n_{ik}-j_{ik}-l_{k_1})!}$$

$$\frac{(n_s-n_{ik}+j_{ik}-n_s-j_i)!}{(j_i-1) \cdot (n_{ik}+j_{ik}-n_s-j_i)!}$$

$$\frac{(n_i-1)!}{(n_s) \cdot (j_i-n-1)! \cdot (n-j_i)!}$$

$$\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!}$$

$$\frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_i+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!}$$

$$\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{()}$$

GÜLDENWA

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq i - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z \mathcal{S}_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{(\cdot)}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_{ik} - l + 1} \sum_{(j_i = l_i + n - D)}^{(l_i - l + 1)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

GÜLDÜNYA

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - 1)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - j_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - s)!}$$

$$\frac{(D - l_i)!}{(n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{l=1}^n \sum_{(j_s=j_{ik}+l_s-l_{ik})}$$

$$(l_{ik}+s-l-j_{sa}^{ik}+1)$$

$$\sum_{k=j_i+j_{sa}^{ik}-s}^n \sum_{(j_i=l_i+n-D)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^n \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq i - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned}
 &= \sum_{j_i=l_i}^{n} \sum_{j_{sa}^{ik}=j_{sa}^i-1}^{j_{sa}^i-1} \binom{()}{j_i+l_s-l_{ik}} \\
 &= \sum_{j_{ik}=j_{sa}^i+1}^{j_{sa}^i+l_s-l_{ik}} \binom{()}{j_i+l_s-l_{ik}} \\
 &= \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 &= \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
 &= \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 &= \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 &= \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 &= \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 &= \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 &= \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}
 \end{aligned}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-)} \sum_{(=l_i+n-D)}^{()}$$

$$\sum_{(=n+l_k)}^{(n_{i_s}+1)} \sum_{(n_{i_s}+1)}^{(n_{i_s}+1)}$$

$$\frac{\sum_{(n_{ik}=n_{is}+j_{ik}-l_{k_1}-l_{k_2}-j_i-l_{k_2})}^{()} (n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n_{i_s} - l_{k_1} - l_{k_2})! \cdot (n_i + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq 1 \wedge l_s \leq D - n - 1 \wedge$$

$$D + l_s + s - 1 - l_i + 1 \leq l \leq l - 1 \wedge$$

$$1 \leq i_s \leq j_{ik} - j_{sa}^{ik} - 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq l \wedge l_s - j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + l_s - 1 \leq l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = l_k > 0 \wedge$$

$$j_{sa}^{l_k} - j_{sa} - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, l_{k_1}, j_{sa}^{ik}, l_{k_2}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + l_k \wedge$$

$$l_{k_2}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$\begin{aligned}
 f_{Z^S} S_{j_s, j_{ik}, j_i} &= \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)} \\
 &\sum_{j_{ik}=j_s+l_{ik}-l_s}^{(l_i-l+1)} \sum_{(j_i=l_i+n-1)} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{ik}=n+k_2-1}^{(n_i+j_{ik}-l_{ik}-k_2)} \sum_{(n_s=n-j_i+1)} \\
 &\frac{(n_i - n_s - 1)!}{(j_s - 2)! \cdot (n_i - j_s + 1)!} \cdot \\
 &\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 &\frac{(n_i - n_s - 1)!}{(n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 &\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 &\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 &\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 &\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)} \\
 &\sum_{j_{ik}=j_s+l_{ik}-l_s}^{(\quad)} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$

$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$

$s > 3 \wedge s = s + 1 \wedge$

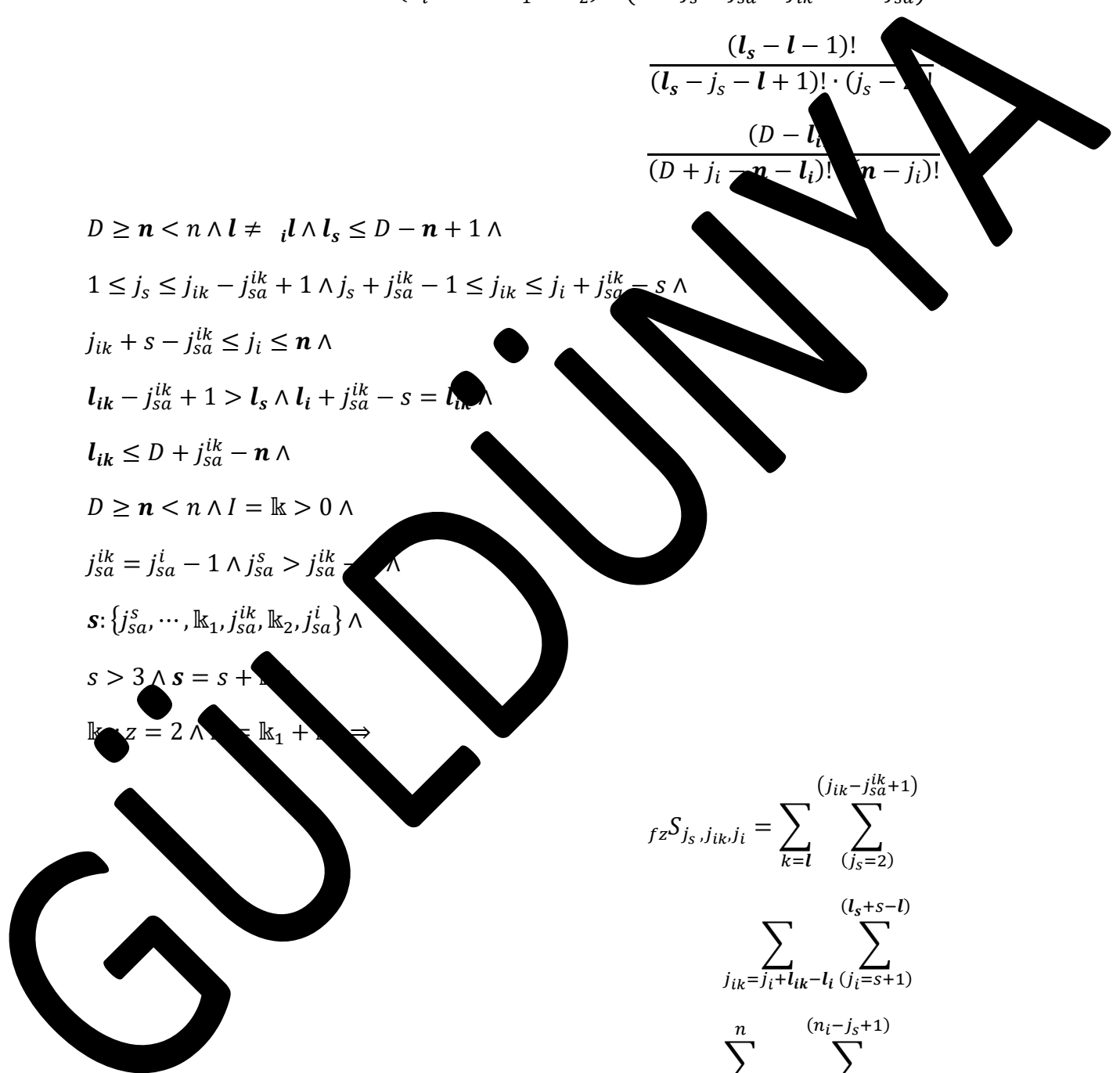
$\mathbb{k}_1 + z = 2 \wedge \mathbb{k}_2 = \mathbb{k}_1 + 1 \Rightarrow$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=s+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$



$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l - 1)!}{(l_s - l + 1)! \cdot (l - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_s)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)} \\
& \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_i - l + 1)} \sum_{(j_i=l_s+s-l+1)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik}=n+\mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}
\end{aligned}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=l}^{()} \sum_{j_s=j_{ik}+1}^{()} \sum_{j_{ik}=j_s-l_i}^{()} \sum_{j_i=j_s+1}^{()} \sum_{n_{is}+k}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-k_2}^{()} \frac{(n_i + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$j_s - j_{sa}^{ik} > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=j_{ik}-\mathbb{k}}^{(n_i-1)}$$

$$\sum_{n_{ik}=n_i-\mathbb{k}}^{(n_{ik}-1)}$$

$$\sum_{(n_{ik}-n_s-1)}$$

$$\frac{(n_{ik}-n_s-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!}$$

$$\frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(n_{is}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}$$

$$\frac{(n_{ik}-n_s-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i)!}$$

$$\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!}$$

$$\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!}$$

$$\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

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$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_{ik})!} \cdot \\
 & \frac{(n_s - j_i - n - l - 1)!}{(n_s - j_i - n - l - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{ik} + l_{ik} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{\binom{()}{}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{()}{}} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{\binom{()}{}} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{\binom{()}{}} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot
 \end{aligned}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} - 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=l}^{l-1} \binom{j_s - l + 1}{k} \cdot \sum_{j_{ik} = j_{sa}^{ik} - 1}^{j_{ik} + j_{sa}^{ik} - 1} \binom{()}{j_{ik} - j_i - l_{ik}} \cdot \sum_{n_i = n + k}^{n_i - j_s + 1} \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1}^{(n_s = n_{ik} + j_{ik} - j_i - k_2)} \binom{()}{n_i + j_s - j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D > n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_i - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik})} \sum_{(j_s=2)}^{(j_s-l)} \sum_{(l_s-l)}^{(l_s-l)} \sum_{(j_{ik}+l_{ik}-l)}^{(j_{ik}+l_{ik}-l)} \sum_{(j_i=l_i+1)}^{(j_i=l_i+1)} \sum_{(n_i=n+l_s)}^{(n_i=n+l_s)} \sum_{(n_i-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{is}+j_s-j_{ik}-\mathbb{k}_1)}^{(n_{is}+j_s-j_{ik}-\mathbb{k}_1)} \sum_{(n_{ik}=l_s-j_{ik}+1)}^{(n_{ik}=l_s-j_{ik}+1)} \sum_{(n_s=n-j_i+1)}^{(n_s=n-j_i+1)} \frac{(n_i - n_{is} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k1})}$$

$$\frac{(n_i-1)}{(j_s-2) \cdot (n_i-n_{is}+1)!}$$

$$\frac{(n_{is}-n_{ik}-l_{k1}-1)!}{(j_{ik}-j_s-1) \cdot (j_s-n_{is}-j_{ik}-l_{k1})!}$$

$$\frac{(n_{ik}-n_s)}{(j_i-l_{k1}-1) \cdot (n_{ik}+j_{ik}-n_s-j_i)!}$$

$$\frac{(n_i-1)}{(n_s+j_i-n-1)! \cdot (n-j_i)!}$$

$$\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!}$$

$$\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k2})}^{()}$$

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$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - l_s + 1)!}$$

$$\frac{(n - l_i)!}{(n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{l+1} \sum_{(j_s=2)}$$

$$\sum_{l_s + j_{s\bar{a}} - l + 1}^{l_i - \mathbb{k}_1 - l - s + 1} \sum_{(j_i = j_{ik} + l_i - l_{ik})}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

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$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_i+n_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{(n_i-j_s+1)} \sum_{(n_i+l_{ik}+l_{k_1}+l_{k_2}-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}} \sum_{(j_{ik}-l_{k_1})} \sum_{(n_{ik}+j_{ik}-j_i-l_{k_2})}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - l_{k_1} - l_{k_2} - l_{k_1} - l_{k_2} + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq 1 \wedge l_s \leq \dots \wedge 1$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - \dots < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq \dots \wedge n \wedge I = l_{k_1} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, l_{k_1}, j_{sa}^{ik}, l_{k_2}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + l_{k_1} \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$\begin{aligned}
 f_z^S j_s, j_{ik}, j_i &= \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=2)}^{(l_i+n-D-s)} \\
 &\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-l-s+1}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 &\sum_{n_i=n-l_i+j_{sa}^{ik}-l-s+1}^n \sum_{(j_s=2)}^{(j_s+1)} \\
 &\sum_{j_{ik}+1}^{n_i+j_s-j_{sa}^{ik}-\mathbb{k}_1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(n_{ik}+j_{ik}-j_{sa}^{ik}-\mathbb{k}_2)} \\
 &\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 + 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \\
 &\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 &\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 &\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - j_i - n - l - 1)!}{(n_s - j_i - n - l - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{ik} + l_{ik} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{()} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{()} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{()} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}
 \end{aligned}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)} \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_s - l)!}{(D + j_{ik} - n - l_i)! \cdot (j_i - l_i)!} + \\
& \sum_{k=1}^{l_s - l + 1} \sum_{j_s=2}^{l_s - l + 1 - k} \frac{(l_{ik} + s - l - j_{sa}^{ik} + 1)!}{j_{ik}^{l_i + l_{ik} - l_i} \cdot (j_i = l_s + s - l + 1)} \cdot \\
& \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \cdot \\
& \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - k_2)} \cdot \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
& \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(\)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=l_{ik}+...-D-j_{sa}^{ik})}$$

$$\sum_{n+l_k}^{(n_i+l_k+1)} \sum_{(n_{is}=n_i+l_k+1)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - s - l_k - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_i + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq 0 \wedge l_s \leq D - n - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} - s - j_{sa}^{ik} \leq j_i - n \wedge$$

$$l_k - j_{sa}^{ik} - 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_s < D - l_s + s - n - 1 \wedge$$

$$D - n < l_s \wedge l = l_k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, \dots, l_{k_1}, j_{sa}^{ik}, l_{k_2}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + l_k \wedge$$

$$l_{k_2}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$\begin{aligned}
 f_{z^S}^{S_{j_s, j_{ik}, j_i}} &= \sum_{k=l}^{(j_{ik}-j_{s_a}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{s_a}^{ik}+1)} \\
 &\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{s_a}^{ik}-l} \sum_{(j_i=j_{ik}+l_i-l)}^{()} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{ik}=n+k_2-1}^{n_{is}+j_s-j_{ik}-1} \sum_{(n_s=n-j_i-1)}^{(n_{is}+j_{ik}-l_{k_2})} \\
 &\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 &\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\
 &\frac{(n_s - n_s - 1)!}{(n_{ik} + j_{ik} - n_s - j_i)!} \\
 &\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 &\frac{(l_{ik} - l_s - j_{s_a}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{s_a}^{ik} + 1)!} \\
 &\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 &\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=l_s+j_{s_a}^{ik}-l+1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\frac{\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} (n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1 - 1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(\)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(\)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-k_2)}^{(\)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s} j_i = \sum_{k=l}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\begin{aligned}
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{(l_s+1)} \frac{\Delta_{l_{ik}+n-j_{sa}^{ik}+1}}{\Delta_{l_{ik}+n-j_{sa}^{ik}+1}} \cdot \\
 & \sum_{i=j_s+j_{sa}^{ik}}^{l+1} \sum_{j_i=j_{ik}+l_i-l_{ik}}^{(l_s+1)} \cdot \\
 & \sum_{n_{is}=n+l_k}^{(n_{is}+1)} \sum_{n_{ik}=n_{is}-j_{ik}-l_{k_1}}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \cdot \\
 & \sum_{n_{ik}=n_{k_2}-j_{ik}+1}^{(n_s-n-j_i+1)} \cdot \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot
 \end{aligned}$$

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$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{()} \sum_{(j_i=j_{ik}+l_i-l)}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_k}^{()} \sum_{(n_{ik}+j_{ik}-j_i)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{sa}^s - l_k - l_i - j_{sa}^s)!}{(n_i - n - l_k - l_i - j_{sa}^s)! \cdot (n_{is} + j_s - j_{ik} - l_k - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq n - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq l_s - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_s \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{ik} + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - l_{ik} < l_{ik} \leq D - l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$\{s, l_{ik}, j_{sa}^{ik}, l_{k_2}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + l_k \wedge$$

$$l_{k_2}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{is}+j_s-j_{ik}} \sum_{(n_{ik}+j_{ik}-j_i-l_{k_2})} \sum_{n_{ik}=n+l_{k_2}+1} \sum_{(n_s=n-j_i)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(n_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\quad)}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq i \wedge l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i \leq j_i + j_{sa}^{ik} - 1 \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, j_{sa}^i\} \wedge$$

$$s = 3 \wedge s = \mathbb{k}_1 + \mathbb{k} \wedge$$

$$\mathbb{k}_z: \mathbb{k} = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{\binom{(\quad)}{j_i=j_{ik}+l_i-l_{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\frac{\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} (n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1 - 1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(\)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{lk}-D-s}^{l_s+j_{sa}^{lk}-l} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(\)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-k_2)}^{(\)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq i \wedge l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz \mathcal{S}_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} - 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{l=1}^{j_s - j_{ik} - j_{sa}^{ik} + s - l} \sum_{j_{ik} = j_i + l}^{j_i} \sum_{j_i = l_{ik} + n + s - D - j_{sa}^{ik}}^{j_i} \sum_{n_i = n + k}^{n_i} \sum_{n_i = n + k - j_s + 1}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1}^{()} \sum_{n_s = n_{ik} + j_{ik} - j_i - k_2}^{()} \frac{(n_i - n - k_1 - k_2)! \cdot (j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D - n < l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=1}^{l_s-l+1} \sum_{j_s=2}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=l_{ik}+n}^{l+1} \sum_{j_i=j_{ik}+l_i-l_{ik}}$$

$$\sum_{j_s=1}^{j_s+1} \sum_{n_{is}=n+\mathbb{k}-j_s+1}$$

$$\sum_{n_{ik}=n_{i2}-j_{ik}+1}^{n_{ik}+j_{ik}-j_i-\mathbb{k}_2} \sum_{(n_s=n-j_i+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

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$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+l_i-l)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{ik}} \sum_{(n_{ik}=n_{ik}+j_{ik}-j_i)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - l_{ik_1} - l_{ik_2} - j_{sa}^i)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_{ik} + j_{sa}^{ik} - l_{ik} - j_{sa}^i)!}$$

$$\frac{(l_{ik} - l - 1)!}{(l_{ik} - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l = l \wedge l_s \leq n - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq l_{ik} + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + l_i - j_{sa}^{ik} \leq j_i \leq l_i \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > 0 \wedge l_i + j_s - s = l_i \wedge$$

$$l_{ik} \geq l_i + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = l > 0 \wedge$$

$$j_{sa}^{ik} = l_{ik} - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, l_{k_2}, j_{sa}^i\} \wedge$$

$$2 \wedge l_{k_2} = s + l_{k_2} \wedge$$

$$l_{k_2}: z = 2 \wedge l_{k_2} = l_{k_1} + l_{k_2} \Rightarrow$$

$$f_z^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(\cdot)} \sum_{i=l}^{(\cdot)} (j_s=1)$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=s)}^{(l_i-l_i+1)} \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_{k_2}-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_s=n-j_i}^{n_{ik}+j_{ik}-j_i-l_{k_2}}$$

$$\frac{(n_i - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - l_{k_1} + 1)!} \cdot \frac{(n_{ik} - n - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} - j_{ik} - l_s - j_i)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_{ik} - l_s - j_{ik} - 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j_i=s)}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}-l_{k_1}+1)}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_{k_2}}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l = l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} = j_{sa}^i - 1 \wedge j_{sa}^s > j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, l_i} \sum_{k=i}^{(\cdot)} \sum_{j_s=1}^{(\cdot)}$$

$$l_{ik} - i \sum_{j_{ik}=j_{sa}^{ik}}^{(\cdot)} \sum_{j_i=l_i}^{(\cdot)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{ik}=k_2-j_{ik}+1)}^{(n_i-j_{ik}-1)}$$

$$\sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-k_2}$$

$$\frac{(n_i - n_{ik} - k_1 - 1)!}{(j_{ik} - 1)! \cdot (n_i - n_{ik} - j_{ik} - k_1 + 1)!}$$

$$\frac{(n_{ik} - n_s - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i)!}$$

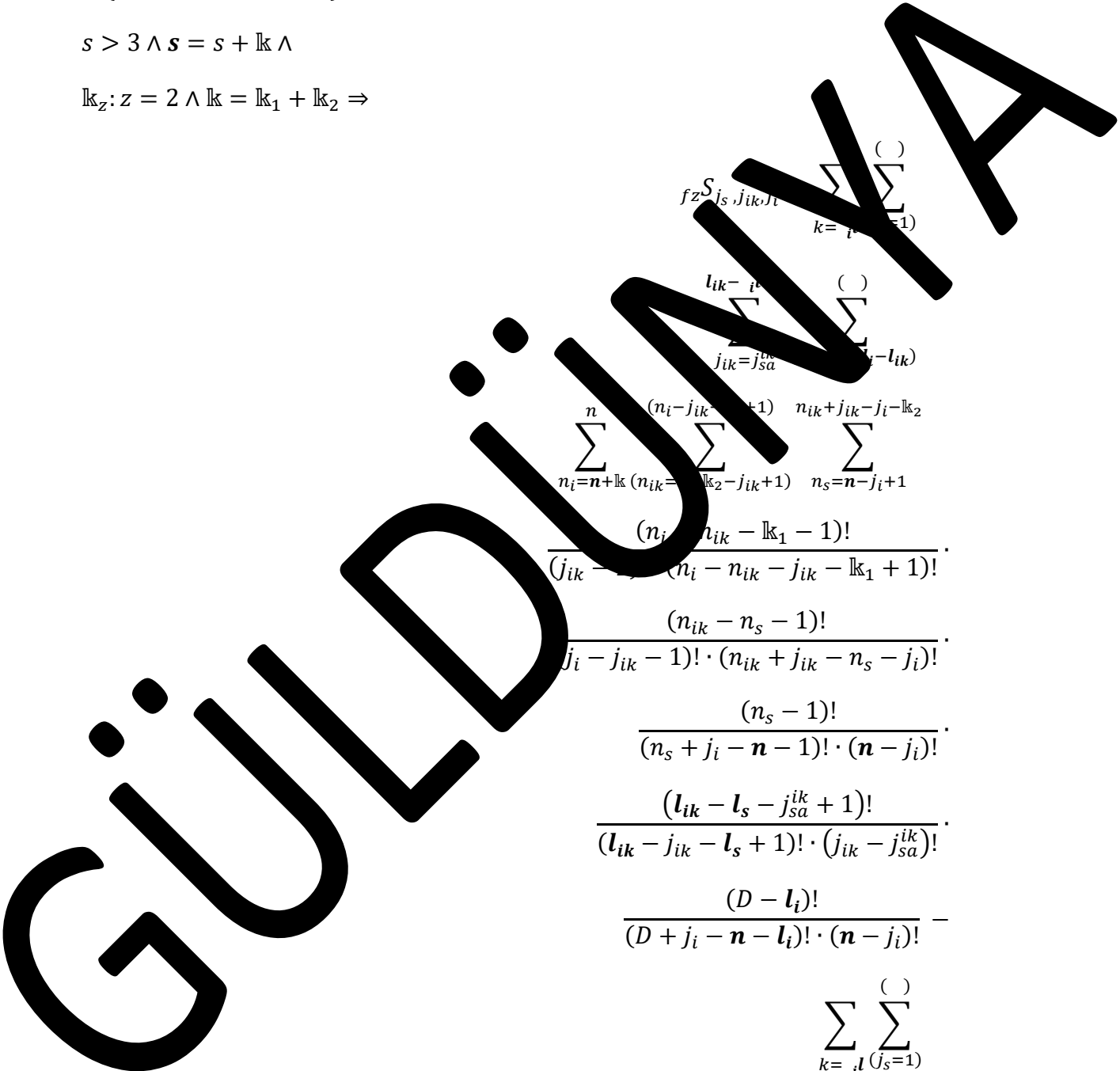
$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=i}^{(\cdot)} \sum_{j_s=1}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{(\cdot)} \sum_{j_i=s}^{(\cdot)}$$



$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{\binom{(\cdot)}{n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1}} \sum_{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(D - l_i)!}{(D + s - \mathbf{n} - l_i)! \cdot (\mathbf{n} - \dots)!}$$

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$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z S_{j_s, l_s, j_i} = \sum_{k=l}^{()} (j_s = j_{ik} - j_{sa}^{ik} + 1)$$

$$\sum_{j_i = j_{ik} + n - D}^{j_i + j_{sa}^{ik} - s} \sum_{(j_i = l_i + n - D)}^{(j_{ik} + s - l - j_{sa}^{ik} + 1)}$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = l_{ik} + n - D}^{l_{ik} - l + 1} \sum_{(j_i = l_{ik} - l + 2)}^{(l_i - 1)}$$

$$\sum_{(n_{ik} + l_{k_2} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{(n_{ik} + j_{ik} - l_{k_1})}^{(n_{is} + j_{ik} - l_{k_1})} \sum_{(n_s = n - j_i + 1)}^{(j_i - l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$(n_{is} - n_{ik} - 1)!$$

$$\frac{(n_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}{(n_{ik} - n_s - l_{k_2} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_{k_2})!}$$

$$(n_{ik} - n_s - l_{k_2} - 1)!$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$(n_s - 1)!$$

$$(n_s + j_i - n - 1)! \cdot (n - j_i)!$$

$$(l_s - l - 1)!$$

$$(l_s - j_s - l + 1)! \cdot (j_s - 2)!$$

$$(l_i + j_{sa}^{ik} - l_{ik} - s)!$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$(D - l_i)!$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

$$\sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

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$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \sum_{(j_i=l_i+n-D)}^{(n_i-j_s+1)}$$

$$\sum_{n_i=n+l}^n \sum_{(n_i=n+l-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{(n_i-j_s+1)} \sum_{(n_s=n_{ik}+l_{k_2}-j_i-l_{k_2})}^{(n_i-j_s+1)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - j_{sa}^{ik})!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s - j_{sa}^{ik} - j_{ik} - s - l_{k_1} - j_{sa}^{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l)}{(D + j_s - n - l)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - j_{ik} \leq j_i \leq j_{sa}^{ik} - s$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - j_{ik} = l_{k_1} \wedge$$

$$D \geq n < n \wedge l = l_{k_1} = 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge j_s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{l_{k_1}, j_{sa}^{ik}, \dots, l_{k_2}, l_i\} \wedge$$

$$j_s > 3 \wedge j_s = s + l_{k_1} \wedge$$

$$l_{k_2}: z = 2 \wedge l_{k_2} = l_{k_2} \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-1}^{j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - l_{k_2} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_{k_2})!}$$

$$\frac{(n_s - j_i - n - l - 1)!}{(n_s - j_i - n - l - 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{ik} - l_{ik} - s)!}{(j_{ik} + l_{ik} - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{\binom{()}{}}$$

$$\sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

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$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - 1)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - j_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{i=1}^n \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_{ik}-j_{sa}^{ik}+1} \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{j_i=l_i+n-D}^{(l_s+s-l)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

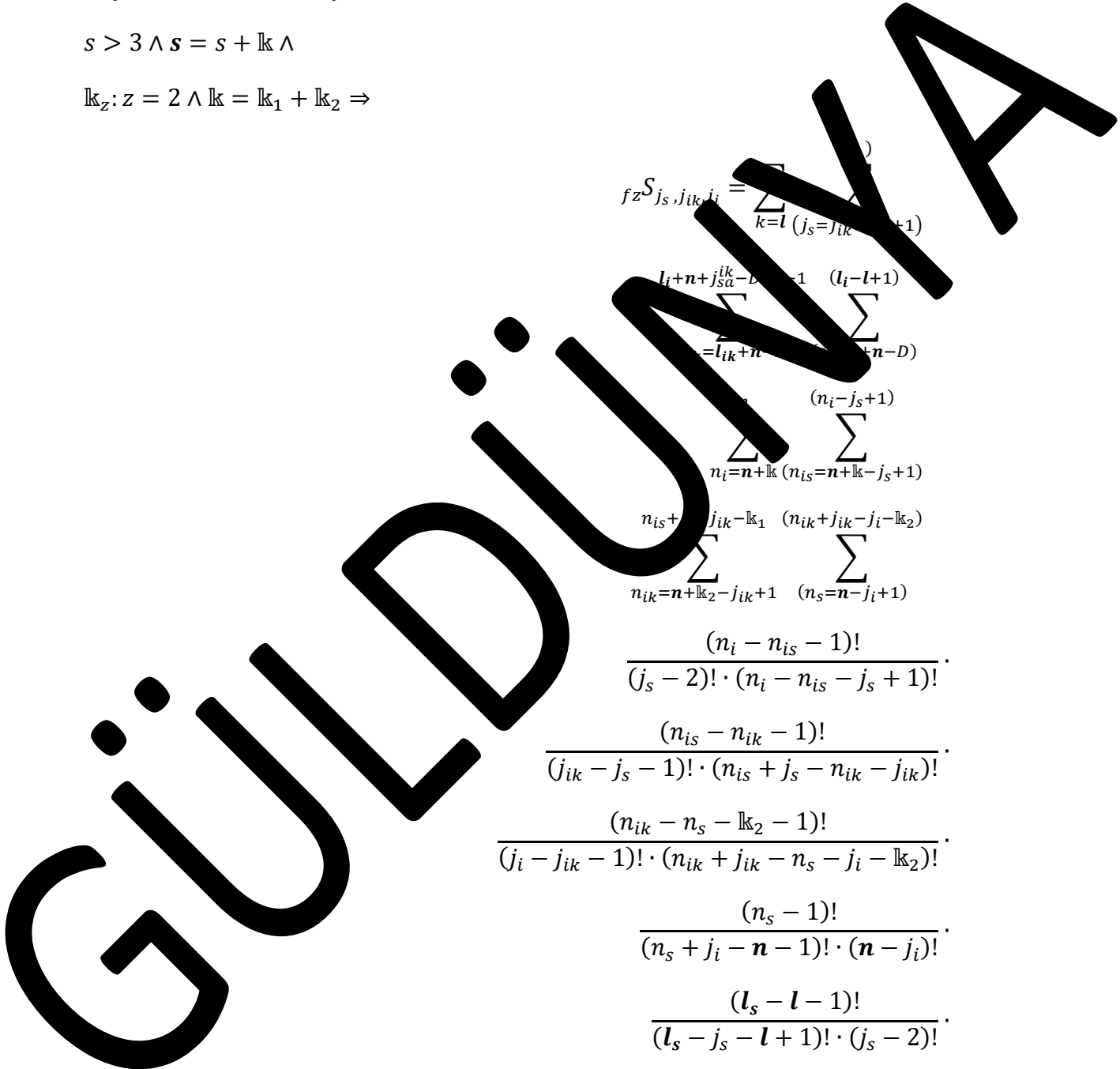
$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$



$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{\dots} (j_s = j_{ik} + 1)$$

$$l_i + n + j_{sa}^{ik} - D + 1 \quad (l_i - l + 1)$$

$$= l_{ik} + n \quad (n - D)$$

$$\sum_{n_i = n + k}^{(n_i - j_s + 1)} \sum_{(n_{is} = n + k - j_s + 1)}$$

$$\sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{j_{ik} - k_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\begin{aligned}
 & \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{lk}-D-s}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{lk})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \frac{(n_{is}+j_s-j_{ik}-1)! \cdot (n_{is}+j_{ik}-j_i-l_k-1)!}{(j_s-2)! \cdot (n_{is}+j_s-j_{ik}-1)!} \\
 & \frac{(n_{is}-j_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-l_k-1)!}{(j_i-j_s-1)! \cdot (n_{is}+j_{ik}-n_s-j_i-l_k-1)!} \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!}
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{lk}-D-s}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{lk})}^{(\quad)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\cdot)}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_i \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z \mathcal{S}_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{\binom{(\cdot)}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-1}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{j_i=l_i+n-D}^{(l_i-l+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l - 1)!}{(j_{ik} + l_i - j_i - l_{ik} - 1)! \cdot (j_i + j_{sa}^{ik} - l - 1)!} \cdot \\
 & \frac{(l_i - l)!}{(n - l)! \cdot (n - j_i)!} \cdot \\
 & \sum_{s=1}^l \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_{ik}-j_{sa}^{ik}+l} \\
 & \sum_{i=n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{j_i=j_{ik}+s-j_{sa}^{ik}}^{(l_i-l+1)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

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$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = l_i + n_{sa}^{ik} - D - s}^{l_s + j_{sa}^{ik} - l} (j_{ik} - j_{sa}^{ik})$$

$$\sum_{(n_i - j_s + 1)} \sum_{(n_{ik} + l_k - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_{ik} - l_{k_1}} \sum_{(n_{ik} + j_{ik} - j_i - l_{k_2})}$$

$$\frac{(n_i + j_s - j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n_{ik} - l_{k_1} - l_{k_2})! \cdot (n_{ik} + j_{ik} - j_i - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > 2 - n + 1 \wedge$$

$$2 \leq j_s - j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} - j_i \leq n$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} - j_{sa}^{ik} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, l_{k_1}, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned}
 f_z S_{j_s, j_{ik}, j_i} &= \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_i+n-D-s)} \\
 &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_i-l+1)} \sum_{(j_i=l_i+n-j_{ik})}^{(l_i-l+1)} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{ik}=n+k_2-1}^{(n_i+j_s-j_{ik}-n_{is}+j_{ik}-j_i-k_2)} \sum_{(n_s=n-j_i-k_2)}^{(n_i-j_s+1)} \\
 &\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_i - n_{ik} - j_s + 1)!} \cdot \\
 &\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot \\
 &\frac{(n_{ik} - n_{ik} - k_2 - 1)!}{(j_i - j_s - 1)! \cdot (n_i + j_{ik} - n_s - j_i - k_2)!} \cdot \\
 &\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 &\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 &\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 &\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \\
 &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_i-l+1)} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\frac{\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} (n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_{ik} - k_2)!}$$

$$\frac{(n_s - n_{ik} - 1)!}{(n_s + j_{ik} - n - 1)! \cdot (n_{ik} - j_{ik})!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa} - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (l_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-k_2)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} & \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=l_s+n-D)}^{(l_i+n-D-s)} \\ & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_i-l+1)} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)} \\ & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\ & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\ & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\ & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \end{aligned}$$

$$\begin{aligned}
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{(l_s - l + 1)} \sum_{(j_s = l_i + n - s + 1)}^{(j_s - 1)} \sum_{(j_{ik} = j_s + j_{sa}^{ik})}^{(j_{ik} - 1)} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{(j_i - 1)} \sum_{(n_{is} = n + k - j_s + 1)}^{(n_{is} - 1)} \sum_{(n_{ik} = n - j_{ik} - k_1)}^{(n_{ik} - 1)} \sum_{(n_{ik} + j_{ik} - j_i - k_2)}^{(n_{ik} - 1)} \sum_{(n_{ik} = n - j_i + 1)}^{(n_{ik} - 1)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot
 \end{aligned}$$

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$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(j_i=j_{ik}+s-j_{ik}^s)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}^s}^{(j_i=n_{ik}+j_{ik}^s-j_{ik}^s)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - l_k - j_{sa}^s)!}{(n_i - n - l_1 - l_2)! \cdot (n_i + j_s + j_{sa}^{ik} - l_k - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n - 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_{ik} \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_{ik} - j_{sa}^{ik} = l_{ik} \wedge$$

$$\geq n < n \wedge l = l_k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, l_{k_1}^{i_1}, \dots, l_{k_2}^{i_2}\} \wedge$$

$$> 3 \wedge s + l_k \wedge$$

$$l_{k_2}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$f_z^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_s=j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

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$$\begin{aligned}
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{(n_{ik}+j_{ik}-j_i-l_{k_1})} \\
 & \frac{(n_i-1)}{(j_s-2) \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_i-l_{k_1}) \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_{ik}-n_{ik}-l_{k_2})}{(j_i-j_{ik}-l_{k_1})! \cdot (n_{ik}-j_{ik}-n_s-j_i-l_{k_2})!} \cdot \\
 & \frac{(n_s-j_i-n-1)! \cdot (n-j_i)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_i+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \cdot \\
 & \sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{()}
 \end{aligned}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

$$\sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - j_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{l=1}^{l_s} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_{sa}^{ik}-l} \sum_{j_i=n+j_{sa}^{ik}-D-s}^{(j_i=j_{ik}+s-j_{sa}^{ik})} \binom{()}{j_i} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \binom{()}{j_s} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(j_i)} \binom{()}{j_i} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_{ik})} \sum_{(j_s + n - D - j_{sa}^{ik} + 1)}^{(l_{ik})} \sum_{j_{ik} = j_{sa}^{ik} - 1}^{(l_{ik})} \sum_{(j_i = l_i + n - D)}^{(l_{ik})} \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_i-n_{is}+1)! \cdot (n_{is}+j_{ik}-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_{ik}-l_{k_2}-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_s-j_i-l_{k_2})!} \\
 & \frac{(n_i-1)!}{(n_s-n_{is}-j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_i-l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}
 \end{aligned}$$

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$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \\
& \sum_{j_{ik} = j_i + j_{sa}^{ik} - s}^{(l_s + s - l)} \sum_{(j_i = l_i + n - D)}^{(\cdot)} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{(\cdot)} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned} & \sum_{j_{ik}=l_{ik}+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-1} \sum_{j_i=j_{ik}+s-j_{sa}^{ik}}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{l_s=n-D}^{(n-j_s+1)} \\ & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\ & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\ & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\ & \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \\ & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\ & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \end{aligned}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)}$$

$$\sum_{j_{ik} = l_s + j_{sa}^{ik} - l + 1}^{l_i + j_{sa}^{ik} - l - s + 1} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{()}$$

$$\sum_{n + k}^n \sum_{(n_{is} = n + k + 1)}$$

$$\sum_{n_{ik} + k_2 - j_{ik}}^{n_{is} + j_s - j_{ik} - 1} \sum_{(j_i = j_{ik} + 1)}$$

$$\frac{(n_{is} - 1)!}{(j_i - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{ik} - n_{ik} - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - k - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

$$\sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = l_i + n + j_{sa}^{ik} - D - s}^{l_s + j_{sa}^{ik} - l} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{()}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = \mathbb{k}_1 + \mathbb{k} \wedge$$

$$\mathbb{k}_z: \mathbb{k}_z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_{ik} - k_2)!} \cdot \\
 & \frac{(n_s - j_i - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-l-s+1}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
 \end{aligned}$$

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$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=0}^{(l_s - l + 1)} \sum_{l_i = D - s + 1}^{(l_s - l + 1)}$$

$$\sum_{j_s = j_s + j_{sa}^{ik} - 1}^{(j_s - l)} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{(j_s - l)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{(j_s - l)}$$

$$\frac{(j_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$j_i \geq n - l_i \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$\mathbf{s}: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge \mathbf{s} = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=1}^{\mathbb{k}-j_{sa}^{ik}+1} \sum_{(j_s=n-D)}^{(l_s+s)} \sum_{(j_i=n+s-D-j_{sa}^{ik})}^n \sum_{(n_i=n+\mathbb{k}-j_s+1)}^{n_i} \sum_{(n_{is}=n_{ik}-\mathbb{k}_1)}^{n_{is}} \sum_{(n_{ik}=n_{ik}-\mathbb{k}_2-j_{ik}+1)}^{n_{ik}} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{lk}-s} \sum_{(j_i=l_s+s-l+1)}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \frac{n_{is}+j_s-j_{ik}-j_{sa}^{lk}+j_{ik}-j_{sa}^{lk}+j_{ik}-l_{k_2}}{n_{ik}=n+l_{k_2}-j_{ik}-1} \cdot \frac{(n_i-j_s+1)}{(n_s-n-j_i+1)} \\
 & \frac{(n_i-n_{ik}-1)!}{(j_s-2)! \cdot (n_i-n_{ik}-j_s+1)!} \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_{k_2}-1)!}{(j_i-j_{k_2}-1)! \cdot (n_i+j_{ik}-n_s-j_i-l_{k_2})!} \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \\
 & \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{lk}-s} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_s+s-l)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2: z = 2 \wedge \mathbb{k} = \dots + \mathbb{k}_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - l_s + 1)!} \cdot \\
& \frac{(n - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{l+1} \sum_{(j_s=l_s+n-D)}^{l+1} \\
& \sum_{i_s+j_s^{\mathbb{k}_2}-l+1}^{-l+1} \sum_{(j_i=j_{ik}+s-j_s^{\mathbb{k}_2})}^{(\cdot)} \\
& \sum_{n_i=n+\mathbb{k}_2}^n \sum_{(n_{is}=n+\mathbb{k}_2-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} (j_{ik}-j_s-j_{sa}^{ik})$$

$$\sum_{(n_i-j_s+1)} \sum_{(n_i+l_{ik}+l_{k_1}+l_{k_2}-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}} \sum_{(j_{ik}-l_{k_1})} \sum_{(n_{ik}+j_{ik}-j_i-l_{k_2})}$$

$$\frac{(n_i + j_s - j_{sa}^{ik} - j_{ik} - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - l_{k_1} - l_{k_2} + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > 2 - n + 1 \wedge$$

$$2 \leq j_s - j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} - j_{sa}^s - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned}
 f_{z^S} S_{j_s, j_{ik}, j_i} &= \sum_{k=l}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{(j_s=l_s+n-D)} \\
 &\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 &\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{ik}=n+l_{k_2}-j_{i_2}+1}^{n_{is}+j_s-j_{ik}-j_{sa}^{ik}+j_{i_2}-l_{k_2}} \sum_{(n_s=n-j_i+1)}^{(n_i-j_s+1)} \\
 &\frac{(n_i-n_{i_2}+1)!}{(j_s-2)! \cdot (n_{is}-n_{i_2}-j_s+1)!} \\
 &\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!} \\
 &\frac{(n_{ik}-n_{i_2}-l_{k_2}-1)!}{(j_i-j_{i_2}-1)! \cdot (n_{is}+j_{ik}-n_s-j_i-l_{k_2})!} \\
 &\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
 &\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
 &\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 &\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 &\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 &\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\begin{aligned}
& \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - 1)!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_{ik} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - n - 1)! \cdot (n - j_i)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(j_s-l+1)} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(j_s-l+1)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(n_i-j_s+1)} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(n_i-j_s+1)} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$\begin{aligned} f_z \mathcal{S}_{j_{ik}, j_i} &= \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)} \\ &\sum_{j_{ik} = j_i + j_{sa}^{ik} - s}^{(l_i - l + 1)} \sum_{(j_i = l_i + n - D)} \\ &\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\ &\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\ &\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\ &\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \end{aligned}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=l}^{()} \sum_{j_s=j_{ik}+j_{sa}^{ik}+1}^{()} \sum_{j_{ik}=j_i+j_s}^{()} \sum_{j_i=l_i+n-D}^{()} \sum_{n_{is}=n+l_k-j_s+1}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_{k_2}}^{()} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_i + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_i + s - l_i \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = l > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, l_{k_1}, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_{ik}=n_{is}-j_{ik}+1}^{n_{ik}+\mathbb{k} (n_{is}=n+\mathbb{k}-j_{ik})}^{(n_i-l+1)}$$

$$\sum_{(j_{ik}=j_i-j_{sa}^{ik}-\mathbb{k}_1)}^{n_{ik}-j_{ik}-\mathbb{k}_1} \sum_{(n_{ik}=n_{is}-j_{ik}-\mathbb{k}_2)}^{n_{ik}+j_{ik}-j_i-\mathbb{k}_2}^{(n_i-l+1)}$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_s-l-2)! \cdot (n_{is}-j_s+1)!}$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_i-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_s-\mathbb{k}_2-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-\mathbb{k}_2)!}$$

$$\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!}$$

$$\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!}$$

$$\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{()} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{i_s}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i + j_{sa}^{ik} - 1 \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge$

$s \in (j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^s) \wedge$

$s > 3 \wedge s = s + \mathbb{k}$

$\mathbb{k}_z : z = 1 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_{ik}+s-l-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_{ik} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - n_{is} - 1)!}{(n_s + j_{ik} - \mathbf{n} - 1)! \cdot (n_{is} - j_{ik} - 1)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + l_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
 & \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{(j_i=l_{ik}+\mathbf{n}+s-D-j_{sa}^{ik})}^{(\quad)} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz \mathcal{S}_{j_{ik}, j_i} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)}$$

$$\sum_{j_{ik} = l_{ik} + n - D}^{l_{ik} - l + 1} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{()}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{j_s=j_{ik}+j_{sa}^{ik}+1}$$

$$\sum_{j_{ik}=l_{ik}+n-j_{ik}+s-j_{sa}^{ik}}$$

$$\sum_{n_i=0}^n \sum_{k=0}^n (n_{is}=n+k-j_s+1)$$

$$\sum_{n_s=n_{ik}+j_{ik}-j_i-k_2}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-k_2}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - j_s + 1 \wedge$$

$$2 \leq j_{ik} - j_{sa}^{ik} - 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$j_{sa}^{ik} - 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$s > 3 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + n - D)}^{(l_s + s - l)}$$

$$\sum_{j_{ik} = l_{ik} + n - D}^{j_i + j_{sa}^{ik} - s} \sum_{(j_i = n - D)}^{(l_s + s - l)}$$

$$\sum_{n_{ik} = l_{ik} + \mathbb{k} (n_{is} = n + \mathbb{k} - j_{ik} - 1)}^{(n_i - j_{ik} + 1)}$$

$$\sum_{n_{ik} = l_{ik} - j_{ik} + 1}^{(n_{ik} - j_{ik} - \mathbb{k}_1 + j_{ik} - j_i - \mathbb{k}_2)}$$

$$\frac{(n_{is} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_i - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)}$$

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$$\begin{aligned}
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_1})} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_i+1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_{ik}-n_{ik}-l_{k_2})!}{(j_i-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_s-j_i-l_{k_2})!} \cdot \\
 & \frac{(n_i-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s-l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!}
 \end{aligned}$$

$$\sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{(j_i=l_i+n-D)}^{(\quad)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\cdot)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!}$$

$$\frac{(D - l)!}{(D + j_i - n - l)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_s \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - j_s - 1)! \cdot (j_{ik} - j_s - l_s + 1)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_{ik} - l_i - s)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - l_i - l)! \cdot (n - j_i)!} + \\
& \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)}^{(l_s - l + 1)} \\
& \sum_{j_{ik} = l_s + j_{sa}^{ik} - l + 1}^{l_{ik} - l + 1} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{(l_i - l + 1)} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
\end{aligned}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{l=1}^{l_s} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_s+l} \sum_{j_{ik}=l_i+n-l}^{j_{ik}+D-s} \sum_{j_i=j_{ik}+s-j_{sa}^{ik}}^{j_i+l} \sum_{n_i=n+l_k}^n \sum_{n_s=n+l_k-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n_i+j_s-j_{ik}-l_{k_1}} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_{k_2}}^{(n_i-j_s+1)} \frac{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D > n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_s - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=l_s+n-D-s)}^{(l_i+n-D-s)}$$

$$\sum_{j_{ik}=l_{ik}-l+1}^{l_{ik}-l+1} \sum_{(j_i=l_i-n+D)}^{(l_i-n+D)}$$

$$\sum_{n_i=n+l_{ik}-j_s+1}^n \sum_{(n_i=n+l_{ik}-j_s+1)}^{(n_i)}$$

$$\sum_{n_{ik}=n+l_{ik}-j_{ik}}^{n+l_{ik}-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_s)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - k_2 - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

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$$\begin{aligned}
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{ik}^{ik})}^{(l_i-l+1)} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{is}+j_s-j_{ik}}^{(n_i+j_{ik}-j_i-k_2)} \\
& \sum_{n_{ik}=n+k_2-1}^{(n_s-n-j_i)} \\
& \frac{(n_i-n_{ik}-1)!}{(j_s-2)! \cdot (n_{ik}+j_s+1)!} \cdot \\
& \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{ik}+j_s-n_{ik}-j_{ik})!} \cdot \\
& \frac{(n_{ik}-n-k_2-1)!}{(j_i-j_s-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-k_2)!} \cdot \\
& \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
& \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
& \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
& \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \cdot \\
& \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{()} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}
\end{aligned}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i + j_{sa}^{ik} - 1 \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge$$

$$s \in (j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^s) \wedge$$

$$s > 3 \wedge s = s + \mathbb{k}$$

$$\mathbb{k}_z : z = \mathbb{k} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
& \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - 1)!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_{ik} - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - n - 1)! \cdot (n - j_i)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 1)!}{(j_s - j_{ik} - l_s + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} - j_i - l_{ik} - 1)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
& \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{(j_i=l_i+n-D)}^{(\quad)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot
\end{aligned}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{j_i + j_{sa}^{ik} - s} \sum_{(j_i = s + 1)}^{(l_{ik} + s - l - j_{sa}^{ik} + 1)}$$

$$\sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(l_i - 1)!}{(D + j_i - n - l_i)! \cdot (j_i)!}$$

$$\sum_{j_{sa}^{ik} = l_{ik} - 1}^{(j_{sa}^{ik} + 1)} \sum_{(j_i = l_{ik} + s - l - j_{sa}^{ik} + 2)}^{(l_i - l + 1)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{()} \sum_{j_{ik} = j_i + j_{sa}^{ik} - s}^{(l_{ik} + s - l - j_{sa}^{ik})} \sum_{(j_s + 1)}^{(n_i - l_{ik} + 1)} \sum_{(n + k)}^{(n_i + k - l_{ik} + 1)} \sum_{(j_{ik} = n_{is} + j_{sa}^{ik} - k_1)}^{(j_i - k_2)} \frac{(n_i + j_s + j_{sa}^{ik} - s - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n_i + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq 0 \wedge l_s \leq D - n + 1 \wedge$$

$$j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} - s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$j_{sa}^{ik} - j_{sa}^{ik} - 1 = l_s \wedge l_i - j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - 1 \wedge$$

$$D - n < l_s \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j_i+j_{sa}^{ik}-s} \sum_{(j_i=s+l)}^{(l_s+s-l)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}-1}^{\Delta} \sum_{(n_s=n-j_i+l_{k_2})}^{\Delta} \frac{(n_s-n_{ik}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!}$$

$$\frac{(n_{is}-j_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-l_{k_2}-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-l_{k_2})!}$$

$$\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!}$$

$$\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!}$$

$$\frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!}$$

$$\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} +$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)}$$

GÜLDÜZMAYA

GÜLDÜZYAZ

$$\begin{aligned}
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - j_i - n - \mathbb{k}_2 - 1)!}{(n_s - j_i - n - \mathbb{k}_2 - 1)!} \cdot \\
 & \frac{(n - j_s - l - 1)!}{(n - j_s - l - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_s - l_{ik} - s)!}{(j_{ik} + l_{ik} - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{\binom{(\cdot)}{}} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{\binom{(\cdot)}{}} \\
 & \sum_{j_{ik} = j_i + j_{sa}^{ik} - s}^{\binom{(l_s + s - l)}{}} \sum_{(j_i = s + 1)}^{\binom{(\cdot)}{}} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{\binom{(\cdot)}{}} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{\binom{(\cdot)}{}} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot
 \end{aligned}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)} \sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_{ik} - l + 1} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{(l_i - l + 1)} \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l + 1)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{j_{sa}^{ik}=j_{sa}^{ik}+1}^{(j_i - j_{ik} - 1)} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(j_i - j_{ik} - 1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_s=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(j_i - j_{ik} - 1)}$$

$$\frac{(l_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$l_i \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{j_s} \sum_{j_{sa}^{ik} = j_{sa}^i - k}^{j_{sa}^i - k} \sum_{j_{ik} = j_{sa}^i - k}^{j_{sa}^i - k} \sum_{n_i = n + \mathbb{k}}^{(n_i - j_s + 1)} \sum_{n_{is} = n + \mathbb{k}_1}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \sum_{n_s = n - j_i + 1}^{(n_s - j_i + 1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\cdot)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_k} \sum_{(n_{ik}+j_{ik}-j_i=n_{is}+j_s-j_{sa}^{ik}-l_k-j_s+1)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - l_k - j_{sa}^s)!}{(n_i - n - l_k - j_{sa}^{ik})! \cdot (n_{is} + j_{sa}^{ik} - j_{sa}^s)!} \cdot \frac{(l_k - l - 1)!}{(j_s - l - 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq n - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa}^{ik} + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq j_{sa}^{ik} + j_{sa}^{ik} - s$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_i + j_{sa}^{ik} - s > l_i \wedge$$

$$l_i \leq l_i + s - n \wedge$$

$$D \geq n < n \wedge l = l_k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, l_{k_1}, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}^i\} \wedge$$

$$2 \wedge z = s + l_k \wedge$$

$$l_{k_z}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$f_z^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{(\cdot)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-n_{is}+n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-\mathbb{k}_2-1)!}{(j_i-j_{ik}-1)!(n_{ik}-j_{ik}-n_s-j_i-\mathbb{k}_2)!} \cdot \frac{(n_i-1)!}{(n_s-j_i-n-1)!(n-j_i)!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)!(j_s-2)!} \cdot \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_i+l_i-j_i-l_{ik})!(j_i+j_{sa}^{ik}-j_{ik}-s)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)!(n-j_i)!} \\
 & \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)}
 \end{aligned}$$

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$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_i - l + 1)} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - j_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{-l+1} \sum_{j_s=2} \\
& \sum_{k=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{()} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_s=j_{ik}-j_{sa}^{ik}+1} \sum_{j_i=j_{sa}^i-1}^{j_i=j_{sa}^i-1} \sum_{j_{ik}=j_i+1}^{j_{ik}=j_i+1} \sum_{(j_i=l_i+n-D)}^{(j_i=l_i+n-D)} \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}-l+1} \sum_{(j_i=l_{ik}+l-j_{sa}^{ik}+2)}^{(l_i-l+1)}$$

$$\sum_{n+l_k}^n \sum_{(n_{is}=n+l_k+1)}^{(n_{is}+1)}$$

$$\sum_{n_{ik}+l_{k_2}-j_{ik}}^{n_{is}+j_s-j_{ik}-l_{k_2}} \sum_{(j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}$$

$$\frac{(n_{is} - n_{is} - 1)!}{(j_i - l_{k_2} - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - l_{k_2} - 1)!}{(j_i - l_{k_2} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_{k_2})!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

$$\sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \sum_{(j_i=l_i+n-D)}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_i \wedge$$

$$D + s - n < l_i \leq D + l_{ik} - s - n - j_{sa}^{ik}$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa}^i - 1 \wedge$$

$$s < s + \mathbb{k}_1, j_{sa}^{ik} < s + \mathbb{k}_2, j_{sa}^{ik} < s$$

$$s > 2 \wedge s = s + \mathbb{k}$$

$$\mathbb{k}_z: z = \dots \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_{ik} - k_2)!} \cdot \\
& \frac{(n_s - n_{is} - 1)!}{(n_s + j_{ik} - n - 1)! \cdot (n - n_{is})!} \cdot \\
& \frac{(l_s - l_i - 1)!}{(l_s - j_s - l_i + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (l_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)} \\
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot
\end{aligned}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{j_{sa}^{ik} = j_i - j_{ik} + 1}^{(j_i - j_{ik} + 1)} \sum_{j_s = j_i + j_{sa}^{ik} - s}^{(l_s + s - l)} \sum_{n_i = n + \mathbb{k}_1}^n \sum_{n_s = n + \mathbb{k}_2 - j_s + 1}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2}^{(j_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$j_s \wedge l \neq j_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

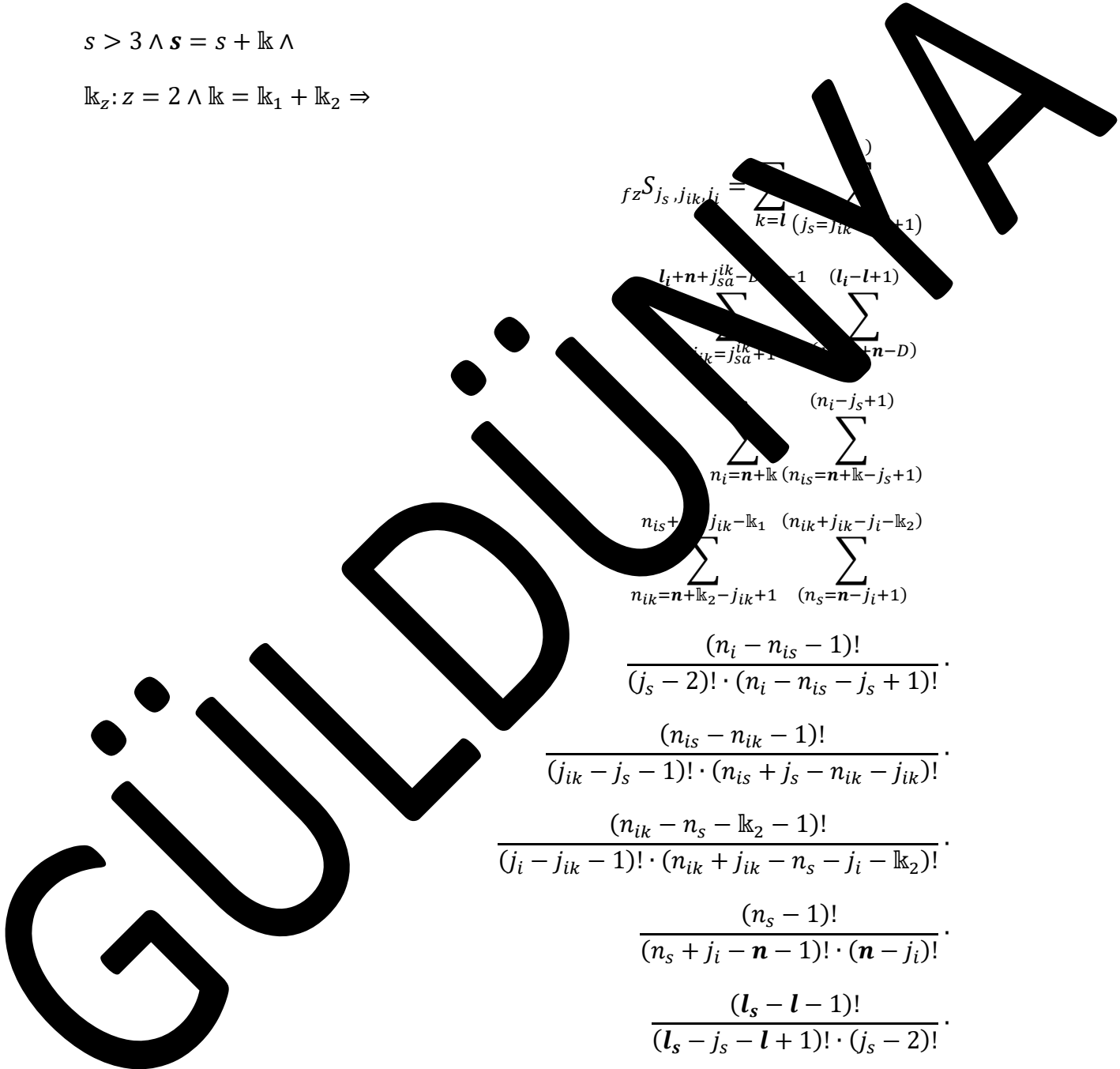
$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$



$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{j_s} \sum_{j_s=j_{ik}+1}^{j_s} \sum_{l_i+n+j_{sa}^{ik}-D+1}^{l_i-l+1} \sum_{j_{ik}=j_{sa}^{ik}+1}^{j_s} \sum_{n_i=n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\begin{aligned}
 & \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{lk}-D-s}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{lk})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \frac{(n_{is}+j_s-j_{ik}-1)! \cdot (n_{is}+j_{ik}-n_i-k_2)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_i-k_2-1)!}{(j_i-j_s-1)! \cdot (n_{is}+j_{ik}-n_s-j_i-k_2)!} \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!}
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{lk}-D-s}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{lk})}^{(\cdot)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$

$D + s - n < l_i \leq D + l_{ik} + s - n - j_s \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$

$s > 3 \wedge s = s + 1$

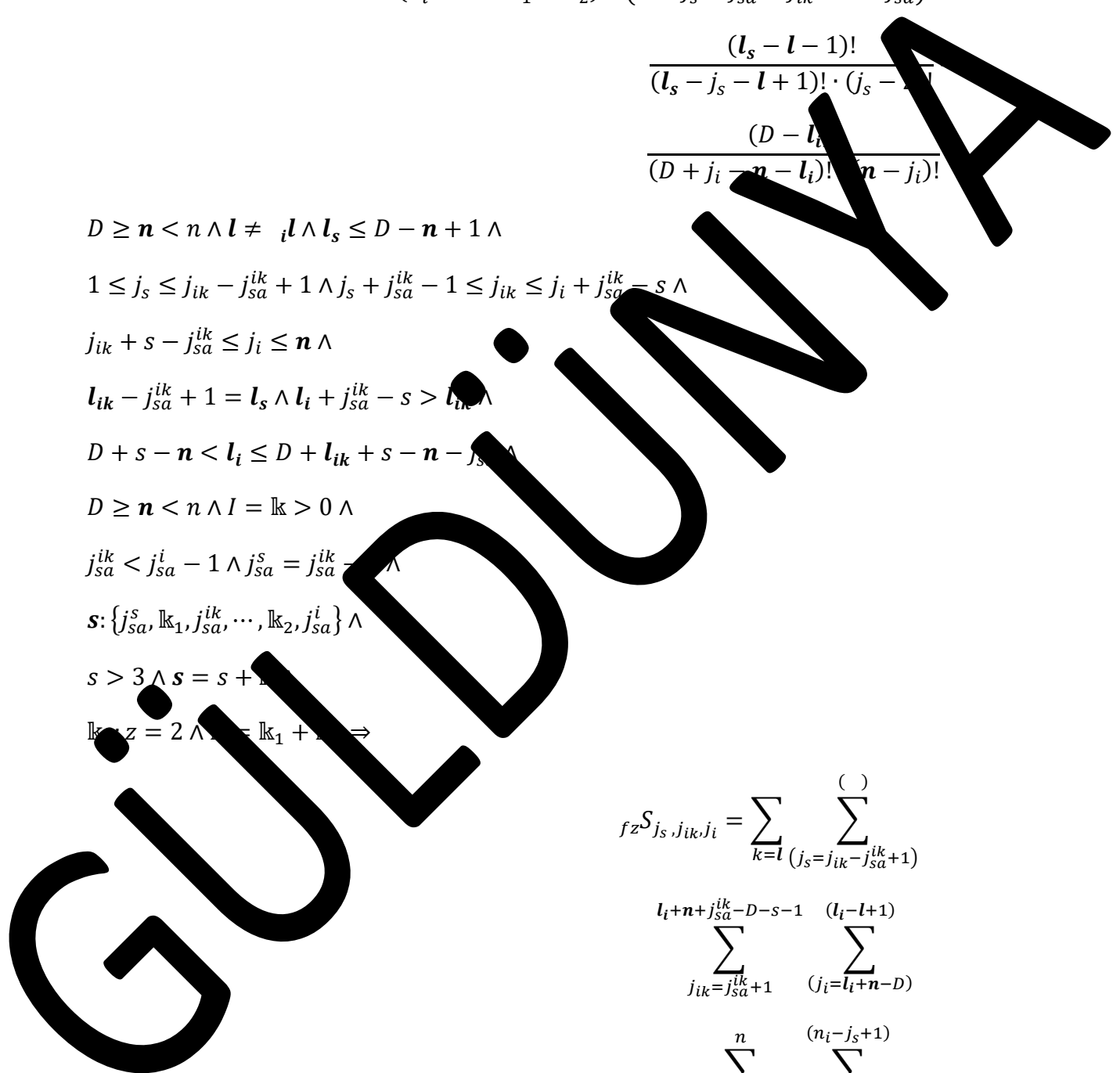
$\mathbb{k}_1 + z = 2 \wedge \mathbb{k}_2 = \mathbb{k}_1 + 1 \Rightarrow$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{\binom{()}{j_i=l_i+l+1}}^{(l_i-l+1)} \sum_{(j_i=l_i+n-D)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{()}{n_{is}=n+\mathbb{k}-j_s+1}}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_s=n-j_i+1}}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$



$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l - 1)!}{(l_s - l + 1)! \cdot (l - 2)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_i - s)!}{(j_{ik} + l_i - l - s)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
 \end{aligned}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=l}^{()} \sum_{(j_s=j_{sa}^{ik}+1)}^{()} \sum_{l_s+l}^{l_s+l} \sum_{n+j_{sa}^{ik}-D-1}^{n+j_{sa}^{ik}-D-1} \sum_{(j_{ik}+s-j_{sa}^{ik})}^{(j_{ik}+s-j_{sa}^{ik})} \sum_{n}^{n} \sum_{n_i}^{n_i} \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_{is}=n+l_k-j_s+1)} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{()} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{()} \frac{(n_i + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l \leq D - n + 1 \wedge$$

$$1 \leq j_{ik} - j_{sa}^{ik} - 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_s \leq j_i \leq n \wedge$$

$$j_{ik} - 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=2)}^{(l_i+n-D-s)}$$

$$\sum_{j_{ik}=j_s}^{(l_i-1)} \sum_{(j_i=n-D)}^{(l_i-1)}$$

$$\sum_{n_i=n+k_1}^{(n_i-j_s)} \sum_{n_i=n+k_2}^{(n_i-j_s+1)}$$

$$\sum_{n_i=n+k_2-j_s+1}^{(n_i-j_{ik}-k_2)} \sum_{(n_s=n-j_i+1)}^{(n_i-j_{ik}-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - k_2 - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)}$$

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$$\begin{aligned}
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{(n_{ik}+j_{ik}-j_i-l_{k_1})} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-n_{is}+n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-l_{k_2}-1)!}{(j_i-j_{ik}-1)!(n_{ik}-j_{ik}-n_s-j_i-l_{k_2})!} \cdot \frac{(n_i-1)!}{(n_s-j_i-n-1)!(n-j_i)!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)!(j_s-2)!} \cdot \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_i+l_i-j_i-l_{ik})!(j_i+j_{sa}^{ik}-j_{ik}-s)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)!(n-j_i)!} \\
 & \sum_{k=1} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{(\quad)}
 \end{aligned}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik}$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=2)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_i-l+1)} \sum_{(j_i=l_i+n-D)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_i - s)!}{(j_{ik} + l_i - j_i - l_{ik} - s)! \cdot (j_i + j_{sa}^{ik} - s)!} \cdot \\
 & \frac{(l_i - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=0}^{\infty} \sum_{i_s=l_i+n-D-s+1}^{\infty} \\
 & \sum_{k=j_s+j_{sa}^{ik}-1}^{\infty} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

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$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-j_{ik}-j_{sa}^{ik}}$$

$$\sum_{n+l_k}^{(n_i-j_s+1)} \sum_{(n+l_k-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}-j_{ik}-l_{k_1}} \sum_{(n_{ik}+j_{ik}-j_i-l_{k_2})}$$

$$\frac{(n_i + j_{sa}^{ik} - j_{ik} - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - l_{k_1} - l_{k_2} - j_{sa}^s)! \cdot (n_i + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq 1 \wedge l_s \leq n - 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} + j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + l_s + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = l_k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, l_{k_1}, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}^i\} \wedge$$

$s > 3 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{s_a}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{s_a}^{ik}+1}^{l_{ik}-l+1} \sum_{(j_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{(n_i-n+1)}^{(n_i-n+1)}$$

$$\sum_{(n_{ik}+k)}^{(n_{ik}+k)}$$

$$\sum_{(n_{ik}-j_{ik}-k_1)}^{(n_{ik}-j_{ik}-k_1)}$$

$$\sum_{(n_{ik}+j_{ik}-j_i-k_2)}^{(n_{ik}+j_{ik}-j_i-k_2)}$$

$$\sum_{(n_{ik}=j_{s_a}^{ik}-j_{ik}+1)}^{(n_{ik}=j_{s_a}^{ik}-j_{ik}+1)}$$

$$\frac{(n_{ik} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{ik} - n_{is} - j_s + 1)!}$$

$$\frac{(n_{ik} - n_{ik} - 1)!}{(j_{ik} - j_i - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - \mathbb{k} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{s_a}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{s_a}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{s_a}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=l_i+n+j_{s_a}^{ik}-D-s}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{s_a}^{ik})}^{(\quad)}$$

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$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l_{k_1} - l_{k_2})! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l_{k_1} - l_{k_2} - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$$

$$D + l_s + s - n - l_i + 1 \leq l \leq i - 1$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i \leq j_i + j_{sa}^{ik} - 1$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{ik} - s > l_{ik}$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik}$$

$$D \geq n < n \wedge l = i \wedge l_s > 0$$

$$j_{ik} < j_{sa}^{ik} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1$$

$$s: \{l_{k_1}, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}^{ik}\} \wedge$$

$$l_{k_2} > 3 \wedge l_{k_1} = s + l_{k_2}$$

$$l_{k_2}: z = 2 \wedge l_{k_1} = l_{k_2} + 2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

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$$\begin{aligned}
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - j_i - n - \mathbb{k}_2 - 1)!}{(n_s - j_i - n - \mathbb{k}_2 - j_i)!} \cdot \\
 & \frac{(n - j_s - l - 1)!}{(n - j_s - l - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_s - l_{ik} - s)!}{(j_{ik} + l_{ik} - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{\binom{()}{j_i=j_{ik}+s-j_{sa}^{ik}}} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{\binom{()}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}
 \end{aligned}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq i \wedge l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2$$

$$f_{zS}^{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{(l_i-l+1)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_i-l+1)} \sum_{(j_i=l_i+n-D)}^{(n)} \sum_{(n_i=n+k-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{ik}=n+k_2-j_{ik}+1)}^{(n_{is}+j_s-j_{ik}-k_1)} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 1)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=1}^{(l_{ik} - l - j_{sa}^{ik} + 2)} \sum_{j_s = j_s + j_{sa}^{ik} - 1}^{(n - j_s + 1)} \sum_{n_i = n + \mathbb{k}}^n \sum_{n_s = n + \mathbb{k} - j_s + 1}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{()}$$

$$\frac{(l_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

- $l_i \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$
- $1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$
- $j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$
- $l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s}^{j_{ik} j_i} = \sum_{k=l}^{(j_s - j_{sa}^{ik} + 1)} \sum_{j_{ik}=j_i}^{(l_s + s - l)} \sum_{n_i=n+k}^{(n_i - j_s + 1)} \sum_{n_{ik}=n+k_2 - j_{ik} + 1}^{j_{ik} - k_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

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$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_i-l+1)} \sum_{(j_i=l_s+s-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}}^{(n_{ik}+j_{ik}-i-k_2)} \\
 & \sum_{n_{ik}=n+k_2-1}^{(n_s-n-j_i+1)} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - k_2 - 1)!}{(j_i - k_2 - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -
 \end{aligned}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{(j_i=s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\cdot)}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + 1 \wedge$$

$$\mathbb{k}_1 + \mathbb{k}_2 = 2 \wedge \mathbb{k}_1 = \mathbb{k}_1 + 1 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{\binom{(\cdot)}{j_s=2}}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{\binom{(\cdot)}{j_i=j_{ik}+s-j_{sa}^{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{(\cdot)}{n_{is}=n+\mathbb{k}-j_s+1}}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\cdot)}{n_s=n-j_i+1}}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l - 1)!}{(l_s - l + 1)! \cdot (l - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_s)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}^{(l_s - l + 1)} \\
& \sum_{j_{ik}=l_s + j_{sa}^{ik} - l + 1}^{l_{ik} - l + 1} \sum_{(j_i=j_{ik} + s - j_{sa}^{ik})}^{()} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
\end{aligned}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{j_s=j_{sa}^{ik}+1}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{ik}-l}^{j_{sa}^{ik}-l} \sum_{j_{ik}=j_{sa}^{ik}+1}^{j_{ik}+s-j_{sa}^{ik}}$$

$$\sum_{n_l=0}^n \sum_{k=0}^{l_i-1} (n_{is}=n+k-j_s+1)$$

$$\sum_{n_s=n_{ik}+j_{ik}-j_i-k_2}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-k_2}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < l \neq i \wedge l \leq D - n + 1 \wedge$$

$$1 \leq j_{ik} - j_{sa}^{ik} - 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_s \leq j_i \leq n \wedge$$

$$j_{ik} - 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s-l+1)} \sum_{j_s=2}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_s+1}^{l_{ik}-l+1} \sum_{(i=j_{ik}-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^{(n_i-j_s)}$$

$$\sum_{n_i=n+\mathbb{k}-j_s+1}^{(n+\mathbb{k}-j_s+1)}$$

$$\sum_{n_i=n+\mathbb{k}_2-j_s+1}^{(n_i-j_i-\mathbb{k}_2)}$$

$$\sum_{(n_s=n-j_i+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{j_s=2}^{(l_s-l+1)}$$

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$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+l_{k_2}-j_i-l_{k_2})}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - j_s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - j_s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l)!}{(D + j_s - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - j_{ik} \leq j_i \wedge j_{sa}^{ik} - s$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - j_{ik} \leq l_{ik} \wedge$$

$$D + j_s - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - j_{ik} - 1$$

$$D > n < n \wedge l_{k_1} > 0$$

$$j_{sa}^{ik} - j_{sa}^i - 1 \wedge j_{sa}^s - j_{sa}^{ik} - 1$$

$$\{j_{sa}^s, l_{k_1}^{ik}, \dots, l_{k_2}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s$$

$$l_{k_z} \cdot z = z \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{(j_i=l_i+n-D)}$$

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$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - l_{k_2} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_{k_2})!} \cdot \\
 & \frac{(n_s - j_i - n - l - 1)!}{(n_s - j_i - n - l - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_{ik} + l_{ik} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_i-l+1)} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
 \end{aligned}$$

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - j_s - 1)! \cdot (j_{ik} - j_s - l_s + 1)!} \cdot \\
& \frac{(D - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{s=1}^n \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_{ik}-j_s} \\
& \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{j_{ik}-j_s} \sum_{j_i=l_i+n-D}^{(l_s+s-l)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\cdot)} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}} = \sum_{l=1}^{\mathbb{k}+1} \sum_{(j_s=2)}^{(j_s=2)} \dots$$

$$\sum_{i=l+n+j_{sa}^{ik}-s}^n \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(n_i-j_s+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\begin{aligned}
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=l_s + j_{sa}^{ik} - l + 1}^{l_i + j_{sa}^{ik} - l - s + 1} \sum_{(j_i=j_{ik} + s - j_{sa}^{ik})} \\
 & \sum_{n+l_k}^n \sum_{(n_{is}=n_{i-1} + 1)}^{(n_{i-1} + 1)} \\
 & \sum_{n_{ik} + l_{k_2} - j_{ik}}^{n_{is} + j_s - j_{ik} - 1} \sum_{(j_i=j_{ik} + 1)}^{(n_{ik} + j_{ik} - j_i - l_{k_2})} \\
 & \frac{(n_{i-1} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{i-1} - n_{ik} - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - l_{k_2} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_{k_2})!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \\
 & \sum_{k=l} \sum_{(j_s=j_{ik} - j_{sa}^{ik} + 1)} \\
 & \sum_{j_{ik}=l_i + n + j_{sa}^{ik} - D - s}^{l_s + j_{sa}^{ik} - l} \sum_{(j_i=j_{ik} + s - j_{sa}^{ik})}
 \end{aligned}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s - l_i \wedge$

$D + j_{sa}^{ik} - n < l_{ik} \leq D + j_{sa}^{ik} + j_{sa}^{ik} - n -$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa}^i - 1 \wedge$

$s < s + \mathbb{k}_1, j_{sa}^{ik} < s + \mathbb{k}_2, j_{sa}^{ik} < s + \mathbb{k}_2$

$s > 2 \wedge s = s + \mathbb{k}$

$\mathbb{k}_z: z = \dots \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{(j_s=2)}^{(l_i+n-D-s)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - \mathbb{k}_2)!} \\
 & \frac{(n_s - \dots)}{(n_s + j_i - \mathbf{n} - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - \dots - 1)!}{(j_s - \dots + 1) \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + \dots - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-l-s+1}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
 \end{aligned}$$

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$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=0}^{(l_s - l + 1)} \sum_{l_i = D - s + 1}^{(l_s - l + 1)} \sum_{j_s = j_s + j_{sa}^{ik} - 1}^{(n_i - j_s + 1)} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{(n_i - j_s + 1)} \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{(n_i - j_s + 1)} \frac{(j_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$n - l_i \neq j_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_s - j_{sa}^{ik+1})} \frac{(j_s - j_{sa}^{ik+1})!}{(j_s - j_{sa}^{ik})!} \cdot \frac{(l_s + s - l)!}{(l_s - j_{sa}^{ik})!} \cdot \frac{(n_i - j_s + 1)!}{\sum_{n_i=n+\mathbb{k}}^{(n_{is}=n+\mathbb{k}-j_s+1)} (n_{is} + j_{ik} - \mathbb{k}_1)! \cdot \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} (n_s - n - j_i + 1)!} \cdot \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{lk}-s} \sum_{(j_i=l_s+s-l+1)}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-1} \sum_{(n_s=n-j_i+l_{k_2})}^{n_i+j_{ik}-j_{ik}-l_{k_2}} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_{ik} - l_{k_2} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{is} + j_{ik} - n_s - j_i - l_{k_2})!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \\
 & \sum_{k=l} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{lk}-s} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_s+s-l)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\quad)}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + 1$$

$$\mathbb{k}: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + 1 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{\binom{(\quad)}{j_s=2}}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{\binom{(\quad)}{j_i=j_{ik}+s-j_{sa}^{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{(\quad)}{n_{is}=n+\mathbb{k}-j_s+1}}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\quad)}{n_s=n-j_i+1}}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l - 1)!}{(l_s - l + 1)! \cdot (l - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_s)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)} \\
& \sum_{j_{ik}=l_s + j_{sa}^{ik} - l + 1}^{l_{ik} - l + 1} \sum_{(j_i=j_{ik} + s - j_{sa}^{ik})} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik}=n+\mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s=n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
\end{aligned}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{j_s=j_{ik}+j_{sa}^{ik}+1}$$

$$\sum_{j_{ik}=l_{ik}+n-j_{sa}^{ik}-l} \sum_{j_{ik}=j_{ik}+s-j_{sa}^{ik}}$$

$$\sum_{n_l=0}^n \sum_{k=0}^{l_i-l} \sum_{n_{is}=n+k-j_s+1}$$

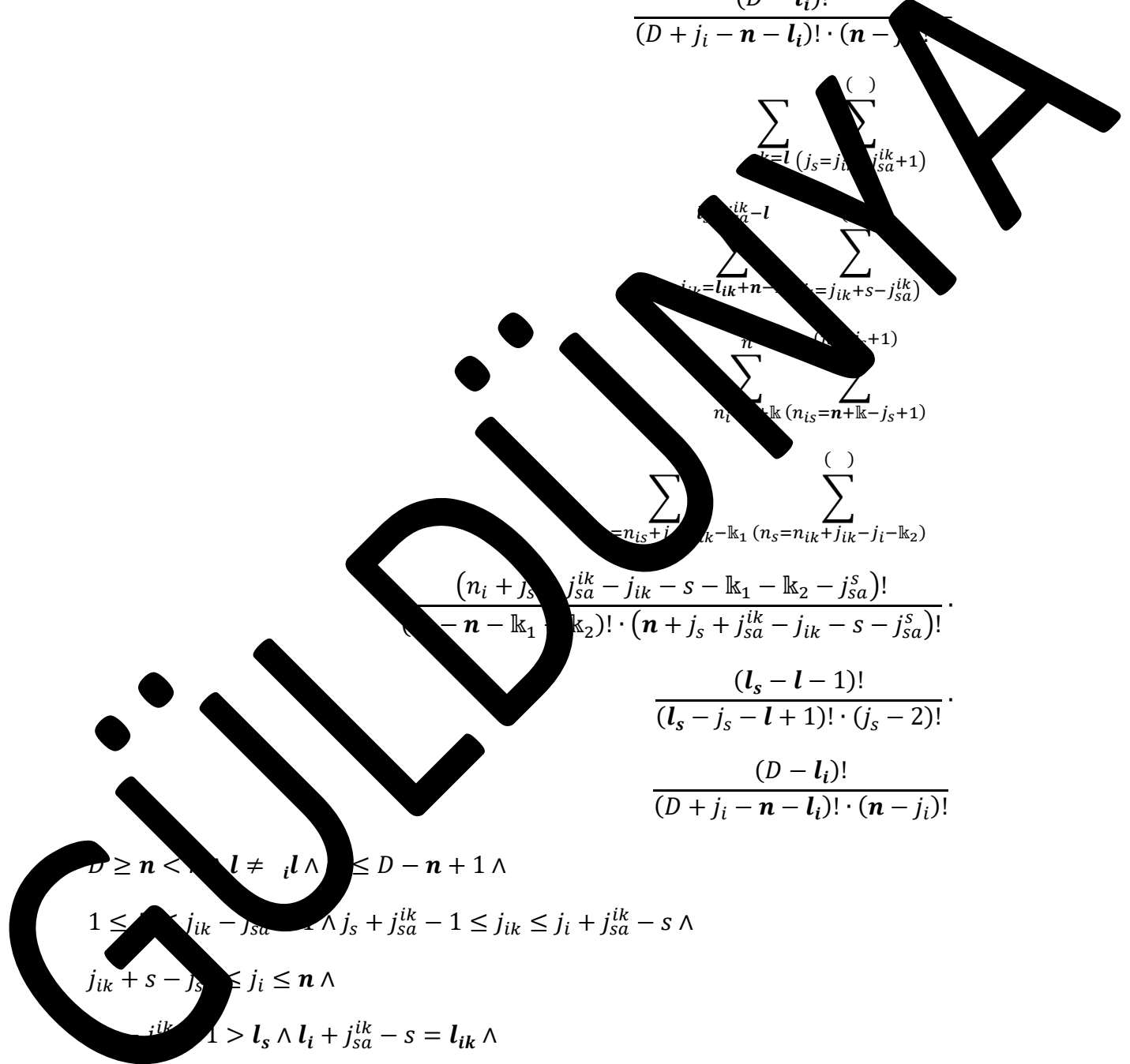
$$\sum_{n_s=n_{ik}+j_{ik}-j_i-k_2}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-k_2}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

- $D \geq n < l \neq i \wedge l \leq D - n + 1 \wedge$
- $1 \leq j_{ik} - j_{sa}^{ik} - 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$
- $j_{ik} + s - j_s \leq j_i \leq n \wedge$
- $j_{ik} - 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$
- $D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$
- $D \geq n < n \wedge l = k > 0 \wedge$
- $j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$



$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{(j_s=2)}^{(n_i-j_s)} \sum_{j_{ik}=l_{ik}}^{(l_{ik}-l+1)} \sum_{(j_i=j_{ik}-j_{sa}^{ik})}^{(n_i-j_s)} \sum_{(n_i=n+k)}^{(n+k-j_s+1)} \sum_{(n_{is}=j_{ik}-k_1)}^{(j_i-k_2)} \sum_{(n_s=n-k_2-j_i+1)}^{(n_s=n-j_i+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)}$$

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$$\begin{aligned}
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-j_{sa}^{ik}-n_{is}+n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-l_{k_2}-1)!}{(j_i-j_{ik}-l_{k_2})! \cdot (n_{ik}-j_{ik}-n_s-j_i-l_{k_2})!} \cdot \frac{(n_i-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_i-l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \cdot \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{()} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{()} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{()}
 \end{aligned}$$

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$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq i - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_i - l + 1)} \sum_{(j_i=l_i+n-D)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - l_s + 1)!} \cdot \\
& \frac{(D - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{s=1}^l \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_{ik}-j_s} \\
& \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{j_{ik}-j_s} \sum_{j_i=l_i+n-D}^{(l_s+s-l)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\cdot)} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq i - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\frac{\sum_{j_{ik}=l_{ik}+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-s+1} \sum_{j_s=2}^{(l_s-l)} \sum_{j_i=j_{ik}+s-j_{sa}^{ik}}^{s_i-j_{ik}j_i} \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(\)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\)}$$

$$\sum_{n+l_k}^{(n_i+l_k+1)} \sum_{(n_i=n+l_k+1)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - s - l_k - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_i + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq 0 \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - 1 \leq l_i + 1 \wedge l \leq l_i - 1 \wedge$$

$$1 \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$l_i + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - 1 \leq l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = l_k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^l - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, l_{k_1}, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + l_k \wedge$$

$$l_{k_2}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_i+j_{s_a}^{ik}-s} \sum_{(j_i=l_{ik}+n+s-D-j_{s_a}^{ik}+1)}^{(l_{ik}+s-l-j_{s_a}^{ik}+1)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$n_{is}+j_s-j_{ik} = n+k-j_s+1+j_{ik}-(j_i-k_2)$$

$$n_{ik}=n+k_2-j_{ik}+1 \quad (n_s=n-j_i+1)$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_i - n_{ik} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{ik} - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{s_a}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{s_a}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{s_a}^{ik}+1)}$$

$$\sum_{j_{ik}=j_s+j_{s_a}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{s_a}^{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\)}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq i \wedge l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i \leq j_i + j_{sa}^{ik} - 1 \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}^i\} \wedge$$

$$s - 3 \wedge s = \mathbb{k}_1 + \mathbb{k}_2 \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{\binom{(\)}{j_i=j_{ik}+s-j_{sa}^{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
& \sum_{n_{ik}=n+l_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - l_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_{ik} - l_2)!} \cdot \\
& \frac{(n_s - n - 1)! \cdot (n - j_i)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + n - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(j_s-l+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(j_s-l+1)} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(j_s-l+1)} \\
& \sum_{n_i=n+l_1}^n \sum_{(n_{is}=n+l_1-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_1}^{(n_i-j_s+1)} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_2)}^{(j_s-l+1)} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_1 - l_2 - j_{sa}^s)!}{(n_i - n - l_1 - l_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$(D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l \neq i \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n) \vee$$

$$(D \geq n < n \wedge l \neq i \wedge l_s \leq D - n - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$l_i \leq D + s - n)) \wedge$$

$$D \geq n < n \wedge l = i \wedge l_s > 0 \wedge$$

$$j_{ik} < j_{sa}^{ik} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, j_{sa}^i\} \wedge$$

$$s > 3, k_1 = s + k \wedge$$

$$k_z: z = 2 \wedge k_2 = k_1 + 1 \Rightarrow$$

$$f_z^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j_i+j_{sa}^{ik}-s} \sum_{(j_i=s+1)}^{(l_s+s-l)}$$

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$$\sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}$$

$$\frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!}$$

$$\frac{(n_{i_s} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{i_s} - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - l_{k_2} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_{k_2})!}$$

$$\frac{(n_s - j_i - n - l - 1)!}{(n_s - j_i - n - l - 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(j_{ik} + l_{ik} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} - l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}-l+1} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{i_s}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}$$

$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l - 1)!}{(l_s - j_i - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)} \\
& \sum_{j_{ik} = j_i + j_{sa}^{ik} - s}^{(l_s + s - l)} \sum_{(j_i = s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(\quad)} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\left((D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$l_i \leq D + s - n)) \wedge$$

$$D \geq n < n \wedge l = l > 0 \wedge$$

$$j_{ik} < j_{sa}^{ik} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, j_{sa}^i\} \wedge$$

$$s > 3, k_1 = s + k \wedge$$

$$k_z: z = 2 \wedge k_2 = k_1 + 1 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n+l_{k_2}-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{i_k}+j_{i_k}-j_i-l_{k_2})} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{i_k} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} - n_{i_k} - j_{i_k})!} \cdot \\
 & \frac{(n_{i_k} - n_s - l_{k_2} - 1)!}{(j_i - j_{i_k} - 1)! \cdot (n_{i_k} + j_{i_k} - n_s - j_i - l_{k_2})!} \cdot \\
 & \frac{(n_s - j_i - n_{i_s} - l - 1)!}{(n_s - j_i - n_{i_s} - l - 1)!} \cdot \\
 & \frac{(j_i - j_s - 1)! \cdot (j_s - 2)!}{(j_i - j_s - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{i_k} - j_{i_s}^{i_k} + 1)!}{(j_i + l_{i_k} - j_{i_s}^{i_k})! \cdot (j_{i_k} - j_s - j_{i_s}^{i_k} + 1)!} \cdot \\
 & \frac{(l_i + j_{i_s}^{i_k} - l_{i_k} - s)!}{(j_i + l_i - j_i - l_{i_k})! \cdot (j_i + j_{i_s}^{i_k} - j_{i_k} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \\
 & \sum_{j_{i_k}=l_s+j_{i_s}^{i_k}-l+1}^{l_{i_k}-l+1} \sum_{(j_i=j_{i_k}+s-j_{i_s}^{i_k})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n+l_{k_2}-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{i_k}+j_{i_k}-j_i-l_{k_2})}
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)} \\
 & \sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_s + j_{sa}^{ik} - l} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{(\quad)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{(\quad)} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\left((D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l \neq i \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$l_i \leq D + s - n) \wedge$$

$$D \geq n < n \wedge l \neq i > 0 \wedge$$

$$j_s^{ik} < j_{sa}^{ik} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k_z = k_1 + 1 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=n+l_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_s)!} \cdot \\
 & \frac{(n_{ik} - n_s - l_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - l_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_s - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - 1)!}{(j_s - l_s + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_s - l_s)! \cdot (j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_i + j_s - l_{ik} - s)!}{(j_{ik} - j_i - l_i)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})} \\
 & \sum_{n_i=n+l}^n \sum_{(n_{is}=n+l-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_2)}^{()} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_1 - l_2 - j_{sa}^s)!}{(n_i - n - l_1 - l_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}
 \end{aligned}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$(D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, j_{sa}^{ik}, \dots, k_2, \dots, i\} \wedge$$

$$s \geq 3 \wedge s = s - k \wedge$$

$$k_2 = 2 \wedge k = k_1 = k_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{j_i + j_{sa}^{ik} - s} \sum_{(j_i=l_i+n-D)}^{(l_s + s - l)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i - j_s + 1)}$$

$$\begin{aligned}
& \sum_{n_{ik}=n+l_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - l_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_{ik} - l_2)!} \cdot \\
& \frac{(n_s - n - 1)! \cdot (n - j_i)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \\
& \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+l_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot
\end{aligned}$$

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - 1)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa} - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - j_{sa} - 1)!} \cdot \\
& \frac{(l_s + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_{ik} - l_s - j_{sa} - s)! \cdot (j_i + j_{sa} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)} \\
& \sum_{j_{ik} = j_i + j_{sa}^{ik} - s}^{(l_s + s - l)} \sum_{(j_i = l_i + n - D)}^{(l_s + s - l)} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(\quad)} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$((D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{sa}^{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{-l+1} \sum_{(j_s=2)}^{-l+1} \\
& \sum_{k=l_s+j_{sa}^{ik}-l+1}^{-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{()}$$

$$\sum_{j_{sa}^{ik}-D-s}^{l_s+j_s-1} \sum_{j_{ik}+s-j_{sa}^{ik}}^{()}$$

$$\sum_{n_i=n_{ik}}^n \sum_{n_i=n_{ik}-j_s+1}^{()}$$

$$\sum_{n_i=n_{ik}-k_1}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-k_2}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$((D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_i \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned} & \sum_{k=1}^{l_i} \sum_{j_s=2}^{(l_i+n-D)} \\ & \sum_{j_{ik}=l_{ik}+1}^{k-l+1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)} \\ & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\ & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\ & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \\ & \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \\ & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\ & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \end{aligned}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_i + n - D - s + 1)}$$

$$\sum_{j_{ik} = j_s + j_{sa}^{ik} - l_{ik} - l + 1}^{l_{ik} - l + 1} \sum_{(j_{ik} + j_{sa}^{ik})}^{(l + 1)}$$

$$\sum_{(n - j_s + 1)}^{(n - j_s + 1)} \sum_{(n + k - j_s + 1)}$$

$$\sum_{(n_{is} + j_{ik} - k_1)}^{(n_{is} + j_{ik} - k_1)} \sum_{(n_{is} + j_{ik} - k_2)}^{(n_{is} + j_{ik} - k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - k_2 - 1)!}{(j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

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$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{()} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-1}^{()} \sum_{(n_{is}=n_{ik}+j_{ik}-j_{sa}^{ik})}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - 1) \cdots (n_i + j_s + j_{sa}^{ik} - l_s + 1) \cdots (n_i + j_s + j_{sa}^{ik} - j_{sa}^s)!}{(n_i - n - l_1 - l_2) \cdots (n_i - j_s + j_{sa}^{ik} - l_s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$((D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq l_i - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{ik} - j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n - l_i \leq D + l_s + s - n - 1) \vee$$

$$(D > n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq l_i - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s-l+1)} \sum_{j_s=2} \sum_{j_{ik}=l_{ik}+1}^{(j_{ik}-l+1)} \sum_{j_i=l_i+n-D}^{(j_i+l+n-D)} \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_{is}+j_s+1)} \sum_{n_{ik}=n_2-j_{ik}+1}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \sum_{n_{ik}=n_2-j_{ik}+1}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \sum_{n_{ik}=n_2-j_{ik}+1}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{()} \sum_{(j_i=j_{ik}+s-j_{ik}^s)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-1}^{()} \sum_{(n_{ik}+j_{ik}-j_{ik}^s)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - \dots - j_{sa}^s)!}{(n_i - n - \dots)! \cdot (n_{is} + j_{sa}^{ik} - \dots - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - \dots + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l = i \wedge l_s \geq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa}^{ik} + j_{ik} - s \wedge$$

$$j_{ik} + j_{sa}^{ik} \leq j_i \leq \dots \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = \dots \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq \dots + s - n \wedge$$

$$\dots \geq n < \dots \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, \dots, k_2, j_{sa}^i\} \wedge$$

$$\dots \geq 3 \wedge \dots + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{()} \sum_{(j_s=1)}^{()}$$

$$\begin{aligned}
& \sum_{j_{ik}=j_{sa}^{lk}} \sum_{(j_i=s)}^{(l_i - l + 1)} \\
& \sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n+l_k-j_{ik}+1)}^{(n_i-j_{ik}-l_{k_1}+1)} \sum_{n_s=n-j_i}^{n_{ik}+j_{ik}-j_i-l_{k_2}} \\
& \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} + j_{ik} + 1)!} \\
& \frac{(n_{ik} - n_s - l_{k_2} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j_i - l_{k_2})!} \\
& \frac{(n_i + j_i - n - 1)! \cdot (n - j_i)!}{(l_i + j_{sa} - l - s)!} \\
& \frac{(l_i + j_{sa} - j_i - l_{ik})! \cdot (j_i - s)!}{(D - l_i)!} \\
& \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$\sum_{k=l}^{()} \sum_{(j_s=1)}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{lk}} \sum_{(j_i=s)}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{ik}=n_i-j_{ik}-l_{k_1}+1)}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_{k_2}}^{()}$$

$$\begin{aligned}
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \\
& \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}
\end{aligned}$$

$$D \geq n < n \wedge l = l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^s j_{sa}^{ik} = \sum_{k=1}^i \sum_{(j_s=1)}^{(i)} \dots$$

$$\sum_{(j_i=i+1)} \dots$$

$$\sum_{(j_{ik}+j_{sa}^{ik}-s)} \dots$$

$$\sum_{(n_i-k-k_1+1)}^{n_i} \sum_{(n_{ik}+j_{ik}-j_i-k_2)} \dots$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_s - k_2 - 1)!}{(i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^i \sum_{(j_s=1)}^{(i)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j_i=s)}^{(i)}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{()}{n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1}} \sum_{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n -)!}$$

$$D \geq n < n \wedge l = l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=1}^n \sum_{l=1}^{\binom{()}{j_s=1}}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}-l+1} \sum_{\binom{()}{j_i=j_{ik}+s-j_{sa}^{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{()}{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}} \sum_{n_s=n-j_i+1}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{(j_s)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{(j_i)}$$

$$\sum_{n_i=n+l_k}^n \sum_{n_j=j_{ik}-l_{k_1}}^{(j_i)} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_{k_2}}^{(j_s)}$$

$$\frac{(n_i + j_{sa}^{ik} - j_{ik} - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - l_{k_1} - l_{k_2})! \cdot (n_i + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$((D \geq n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n) \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l = l_i \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n) \vee$$

$$(D \geq n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n)$$

$$l_i - s + 1 > l_s \wedge$$

$$l_i \leq D + s - n) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{S_{j_s, \dots, j_i}} = \sum_{k=i}^n \sum_{l=(j_s=1)}^n$$

$$l_{ik} - l_s + l_{i+1}$$

$$j_{ik}^{ik} (j_i = j_{ik} + s - j_{sa}^{ik})$$

$$\sum_{n_i=0}^n \sum_{(n_i - \mathbb{k}_1 + 1)}^{(n_i - \mathbb{k}_1 + 1)} \sum_{(n_i - \mathbb{k}_2 - j_{ik} + 1)}^{n_{ik} + j_{ik} - j_i - \mathbb{k}_2} \sum_{n_s = n - j_i + 1}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=i}^n \sum_{l=(j_s=1)}^n$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j_i=s)}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(D - l_i)}{(D + s - n - l_i)! (n - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik}$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\}$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2: z \geq 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_{ik}+s-l-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_s=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\begin{aligned}
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l - 1)!}{(l_s - l + 1)! \cdot (l - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_i - s)!}{(j_{ik} + l_i - l - s)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=l}^{()} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{()} \\
& \sum_{j_{ik} = l_{ik} + n - D}^{l_{ik} - l + 1} \sum_{(j_i = l_{ik} + s - l - j_{sa}^{ik} + 2)}^{(l_i - l + 1)} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
\end{aligned}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{j_s=j_{ik}+l_{ik}}^{()} (j_s - l_{ik})$$

$$(l_{ik} + \dots + 1)$$

$$\sum_{j_i=j_{sa}^{ik}-s}^{()} \sum_{j_i=l_i+n-D}^{()} (j_i + 1)$$

$$\sum_{n_i=n+l_{ik}-j_s+1}^{()} (n_i + 1)$$

$$\sum_{n_i=n+l_{ik}-j_s+1}^{()} (n_i + 1)$$

$$\sum_{n_i=n+l_{ik}-j_s+1}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_{k_2}}^{()} (n_s + 1)$$

$$\frac{(n_i + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\geq n < n \wedge l_s > D - \dots + 1 \wedge$$

$$2 \leq j_{ik} \leq j_{ik} - j_{sa}^{ik} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$j_{sa}^{ik} - j_{sa}^{ik} = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge I = l_{k_2} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, l_{k_1}, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + l_{k_2} \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)}$$

$$\sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-1}^{j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)}$$

$$\sum_{n_i=n+1}^n \sum_{(n_i+j_s+1)}^{(n+j_s+1)}$$

$$\sum_{i_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{ik}+j_{ik}-j_{ik_2})}^{(n_{ik}+j_{ik}-j_{ik_2})}$$

$$\frac{(n_i - n_{is})}{(j_s - 2) \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1) \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{is} - \mathbb{k}_2 - 1)!}{(j_{ik} - 1) \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)}$$

$$\sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)}$$

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$$\begin{aligned}
 & \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \\
 & \frac{(n_s - j_i - n - l - 1)!}{(n_s - j_i - n - l - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_s - l_{ik} - s)!}{(j_{ik} + j_{sa} - j_i - k)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{()} \\
 & \sum_{j_{ik} = j_i + j_{sa}^{ik} - s} \sum_{(j_i = l_i + n - D)}^{(l_s + s - l)} \\
 & \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - k_2)}^{()} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}
 \end{aligned}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{zS} j_i = \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=0}^{l-1} \sum_{j_s=j_{ik}+l_s-k}^{n-l-k} \sum_{j_{ik}=l_i+l-k}^{l-1} \sum_{j_i=j_{ik}-s-j_{sa}^{ik}}^{(l_i-l+1)} \\
& \sum_{n_i=n+k}^{(n_i-j_s+1)} \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot
\end{aligned}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{ik}^s)}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-1} \sum_{(n_{is}=n_{ik}+j_{ik}-j_i)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - \dots - j_{sa}^s)!}{(n_i - n - \dots)! \cdot (n_{is} + j_{sa}^{ik} - \dots - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - \dots + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n - 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq \dots + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + \dots - j_{sa}^{ik} \leq j_i \leq \dots \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = \dots \wedge l_i + j_{sa}^{ik} - s > l_s \wedge$$

$$D \geq \dots < n \wedge I = \dots \wedge$$

$$j_{sa}^{ik} < j_{sa}^s - 1 \wedge j_{sa}^s = j_{sa}^s - 1 \wedge$$

$$s: \{j_s, \dots, j_{sa}^{ik}, \dots, j_{sa}^s\} \wedge$$

$$s > 3 \wedge s = \dots + k \wedge$$

$$z = 2, \dots, k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-s-1}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-l_{k_2}-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_s-j_i-l_{k_2})!} \cdot \frac{(n_s-j_i-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_i+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=l}^{\binom{()}{}} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{\binom{()}{}} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_i - s)!}{(j_{ik} + l_i - \mathbb{k}_1 - s)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{(\cdot)} \\
 & \sum_{j_{ik} = l_i + n + j_{sa}^{ik} - D - s}^{l_s + j_{sa}^{ik} - l} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{(\cdot)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{(\cdot)} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z S_{j_s}^{(l_i+n-D-s)} \sum_{k=0}^{j_s-1} \sum_{l=0}^{(l_i+n-D-s)-j_{sa}^{ik}+1} \sum_{i_{ik}=j_s+l_{ik}-l_s}^{(l_i-l+1)} (j_i=l_i+n-D) \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{(l_i-l+1)} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}$$

$$\sum_{n+l_k}^{(n_i+l+1)} \sum_{(n_{is}=n+l_k+1)}$$

$$\sum_{n_{ik}+l_{k_2}-j_{ik}}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \sum_{(j_i+1)}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_i - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - l_{k_2} - 1)!}{(j_i - l_{k_2} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_{k_2})!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{()} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}^i\} \wedge$$

$$s \geq 3 \wedge s = \mathbb{k}_1 + \mathbb{k} \wedge$$

$$\mathbb{k}_z: \mathbb{k}_z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_{ik} - k_2)!} \cdot \\
 & \frac{(n_s - n - 1)! \cdot (n - j_i)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l + 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa} - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (l_i + j_{sa} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_s+l_{ik}-l_s}^{(l_i-l+1)} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}
 \end{aligned}$$

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$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=0}^{(l_s - l + 1)} \sum_{l_i = D - s + 1}^{(l_s - l + 1)}$$

$$\sum_{j_s = j_s + l_{ik} - l_s}^{(j_s - l)} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{(j_i - l)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{(n_s - l)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$j_i \geq n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{j_s} \sum_{j_{ik}=l_{ik}}^{(l_i-l+1)} \sum_{n_i=n+k}^{(n_i-j_s+1)} \sum_{n_{is}=n+k-j_s+1}^{(n_i+j_{ik}-j_i-k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\begin{aligned}
 & \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\cdot)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{lk}-s}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \sum_{(j_i=l_i+n-D)}^{(\cdot)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{ik}}^{(\cdot)} \sum_{(n_{ik}+j_{ik}-j_i)}^{(\cdot)} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - l_{ik} - l_s - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2} - l_s - j_{sa}^s)!} \cdot \frac{(l_{k_1} - l_{k_2} - j_{sa}^s)!}{(l_{k_1} - l_{k_2} - l_s - j_{sa}^s + 1)! \cdot (j_s - 2)!} \\
 & \frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$$D \geq n < n \wedge l_s > D - n \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge j_{sa}^{ik} - l_{ik} \geq l_{ik} \wedge$$

$$D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} < j_i - 1 \wedge j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, \dots, k_2, j_{sa}^i\} \wedge$$

$$z \geq 3 \wedge s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\cdot)}$$

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$$\begin{aligned}
 & \sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{is}+j_s-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-1-\mathbb{k}_2-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_s-j_i-\mathbb{k}_2)!} \cdot \frac{(n_s-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_i+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!}
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=l}^{\binom{()}{}} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{\binom{()}{}} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{(j_i=l_i+n-D)}^{\binom{()}{}} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{\binom{()}{}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{\binom{()}{}}
 \end{aligned}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_i-l+1)} \sum_{j_{ik}=j_s+l_{ik}-l_s}^{(l_i-l+1)} \sum_{(j_i=l_i+n-D)}^{(n_i-j_s+1)} \sum_{n_i=n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_{is}+j_s-j_{ik}-\mathbb{k}_1)} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - j_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=0}^{\lfloor \frac{l_i - j_i + n - D - s + 1}{2} \rfloor} \sum_{i_s=l_i+n-D-s+1}^{i_s+l_i-2k} \binom{(\cdot)}{i_s} \\
& \sum_{i_k=j_s+l_{ik}-l_s} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})} \binom{(\cdot)}{i_k} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \binom{(\cdot)}{i_k} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, j_i, j_i} = \sum_{k=l}^{(j_{sa}^{ik}+1)} \sum_{(j_s=l_s)}^{(l_s+s-l)} \sum_{(j_{ik}=j_i+l)}^{(n-D)} \sum_{(n_i-j_s+1)}^{(n_i-n+k)} \sum_{(n_i=n+k)}^{(n_i=n+k-j_s+1)} \sum_{(n_{is}+j_{ik}-k_1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \sum_{(n_{ik}=n+k_2-j_{ik}+1)}^{(n_s=n-j_i+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

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$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_i-l+1)} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \sum_{(n_s=n-j_i)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
 & \sum_{n_{ik}=n+l_{k_2}}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \sum_{(n_s=n-j_i)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{ik} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik})!} \\
 & \frac{(n_{ik} - n_{ik} - l_{k_2} - 1)!}{(j_i - n_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_{k_2})!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

GÜLDÜSÜYA

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\quad)}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2: z = 2 \wedge \mathbb{k} = \dots + \mathbb{k}_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{\binom{(\quad)}{j_i=j_{ik}+l_i-l_{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - 1)! \cdot (j_{ik} - j_s - l_s + 1)!} \cdot \\
 & \frac{(n - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{i-1} \sum_{(j_s=l_s+n-D)}^{i-1} \\
 & \sum_{l_s+j_{sd}-l+1}^{l_i-k-l-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{i-1} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

GÜLDÜMNA

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_i+n_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{(n_i-j_s+1)} \sum_{(n_i+l_{ik}+l_{k_1}+l_{k_2}-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}} \sum_{(j_{ik}-l_{k_1})} \sum_{(n_{ik}+j_{ik}-j_i-l_{k_2})}$$

$$\frac{(n_i + j_s - j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - l_{k_1} - l_{k_2} - j_{sa}^s)! \cdot (n_i + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > 2 - n + 1 \wedge$$

$$2 \leq j_s - j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} - j_{sa}^s - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fzS_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+l_i-l)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+k_2)}^{n_i+j_{ik}-l-k_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{ik} - k_2 - 1)!}{(j_i - j_s - 1)! \cdot (n_{is} + j_{ik} - n_s - j_i - k_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

GÜLDENYA

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_s)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - \mathbb{k}_2 - 1)!}{(n_s + j_s - \mathbf{n} - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + \mathbf{n} - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{()} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{()} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{()} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z = j_{ik} j_i = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_s+s-l)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot$$

$$\sum_{k=l}^{l_s-l+1} \sum_{(j_s=n-D)}^{l_s-l+1} \frac{(l_{ik}+1)!}{\sum_{(j_i=j_i+l_{ik}-l)}^{l_s-l+1} \sum_{(j_s=s-l+1)}^{l_s-l+1} (j_s+1)!} \cdot$$

$$\sum_{(n_{is}=n+k-j_s+1)}^{l_s-l+1} \frac{(n_{is}+k)!}{\sum_{(n_{ik}=j_{ik}-k_1)}^{l_s-l+1} \sum_{(n_{ik}+j_{ik}-j_i-k_2)}^{l_s-l+1} (j_s+1)!} \cdot$$

$$\sum_{n_{ik}=1}^{l_s-l+1} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot$$

GÜLDÜMNYA

$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=l_{ik}+n+s-D-j_{ik}^{ik})}^{(\cdot)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n_{ik}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{ik}}^{(\cdot)} \sum_{(n_{ik}=n_{ik}+j_{ik}-j_i)}^{(\cdot)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{sa}^{ik} - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_{ik} + j_{sa}^{ik} - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(n_i - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l_s > D - n \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa}^{ik} + j_{sa}^{ik} - s \wedge$

$j_{ik} + j_{sa}^{ik} - j_{sa}^{ik} \leq j_i \leq$

$l_{ik} - j_{sa}^{ik} + 1 > \wedge l_i + j_s - s =$

$D \geq < n \wedge l = l_{k_1} + l_{k_2} \wedge$

$j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^{ik}, j_{sa}^{ik}, \dots, j_{sa}^{ik}\} \wedge$

$s > 3 \wedge s = l_{k_1} + l_{k_2} \wedge$

$l_{k_2} = l_{k_1} \wedge l_{k_2} = l_{k_1} + l_{k_2} \Rightarrow$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \binom{(\quad)}{j_i=j_{ik}+l_i-l_{ik}} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_i)!(n_{is}+j_s-n_{ik}-j_{ik})!} \\
 & \frac{(n_{ik}-n_{ik}-l_{k_2})!}{(j_i-j_{ik}-1)!(n_{ik}-j_{ik}-n_s-j_i-l_{k_2})!} \\
 & \frac{(n_i-1)!}{(n_s)!(j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_i+l_{ik}-j_{ik}-l_s)!(j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{ik}-l+1} \binom{(\quad)}{j_i=j_{ik}+l_i-l_{ik}} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}
 \end{aligned}$$

GÜLDÜZMAYA

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \\
 & \sum_{j_{ik} = l_{ik} + n - D}^{l_s + j_{sa}^{ik} - l} \sum_{(j_i = j_{ik} + l_i - l_{ik})}^{(\cdot)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{(\cdot)} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned} & \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_s+1}^{(n_i-j_s+1)} \\ & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\ & \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \\ & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \end{aligned}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_{ik} + n - D - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = j_s + j_{sa}^{lk} - 1}^{l_{ik} - l + 1} \sum_{(j_i = j_{ik} + l_i - l_{ik})}$$

$$\sum_{n + k}^n \sum_{(n_{is} = n - k + 1)}$$

$$\sum_{n_{ik} + k_2 - j_{ik}}^{n_{is} + j_s - j_{ik} - 1} \sum_{(j_s = j_{ik} + l_i - k_2)}$$

$$\frac{(n_{is} - 1)!}{(n_{is} - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

$$\sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_{ik} + n - D - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = j_s + j_{sa}^{lk} - 1} \sum_{(j_i = j_{ik} + l_i - l_{ik})}$$

GÜLDENWA

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i + j_{sa}^{ik} - 1 \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^{ik} - 1 \wedge$$

$$s \in (j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^s) \wedge$$

$$s > 3 \wedge s = s + \mathbb{k}$$

$$\mathbb{k}_z: z = \mathbb{k} \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_i-l+1)} \sum_{(j_i=l_i+n-D)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=n+l_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - l_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_{ik} - l_2)!} \cdot \\
 & \frac{(n_s - n_{is} - 1)!}{(n_s + j_s - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=l_i+n-D)}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_1}^{()} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_2)}^{()} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_1 - l_2 - j_{sa}^s)!}{(n_i - n - l_1 - l_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{zS}^{\mathcal{J}}_{j_{ik}, j_i} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)}^{(l_i + j_{sa}^{ik} - l - s + 1)} \sum_{(j_{ik} = l_i + n + j_{sa}^{ik} - D - s)}^{(j_i = j_{ik} + l_i - l_{ik})} \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{j_s=j_{ik}+j_{sa}^{ik}+1}^{()} \sum_{i=j_{ik}+l_i-l_{ik}}^{l_s+l_i-l} \sum_{n_i=n+l_k}^{n+l_k} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_{k_2}}^{n+l_k-l_{k_1}} \sum_{n_i=n+l_k}^{n+l_k} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_{k_2}}^{n+l_k-l_{k_1}} (n_s=n_{ik}+j_{ik}-j_i-l_{k_2})!$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_i + s - n - 1 \leq l \leq D - n + 1 \wedge$$

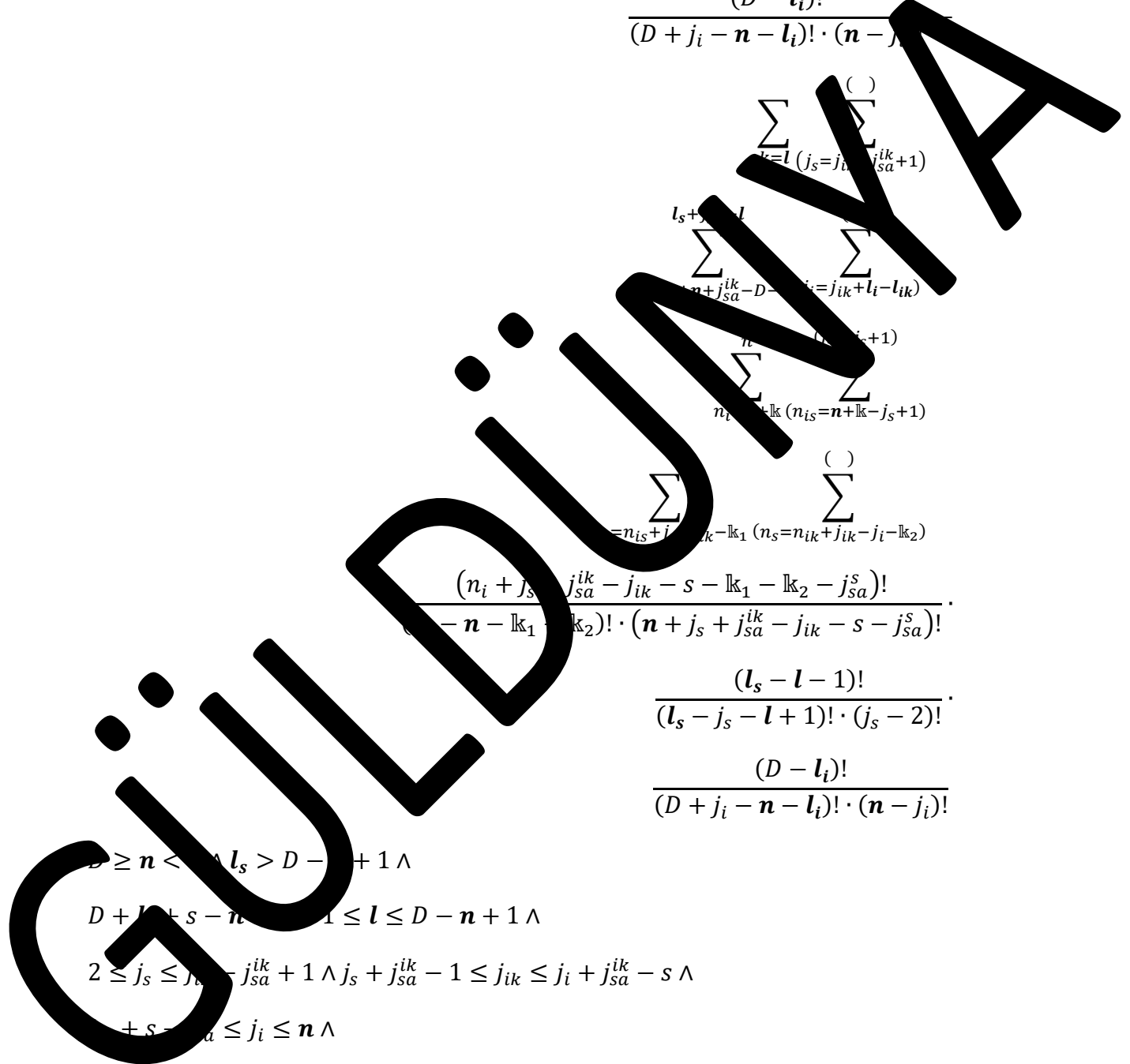
$$2 \leq j_s \leq j_{ik} + j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_s + s - j_{sa}^s \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$



$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n_{sa}-j_{sa}^{ik}+1)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_{sa}}^{(l_{ik}+s-j_{sa}^{ik}+1)} \sum_{(j_{sa}^{ik}+1)}^{(l_{ik}+s-j_{sa}^{ik}+1)}$$

$$\sum_{(n_i=n+l_{ik}-j_{sa}^{ik}+1)}^{(n_i-j_s)} \sum_{(n_s=n+l_{ik}-j_s+1)}^{(n_i-j_s)}$$

$$\sum_{(n_{is}=n_{ik}-k_1)}^{(n_{is}-j_{ik}-k_1)} \sum_{(n_s=n+l_{ik}-j_i+1)}^{(n_s=n-j_i+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_s - k_2 - 1)!}{(j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

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$$\sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(l_s+s-l)}^{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_i-j_s+1)}^{(n_i=n+l_k-j_s)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+l_i-j_i-l_{k_2})}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - j_s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - j_{sa}^s)!}$$

$$(l_s - l - 1)!$$

$$(l_s - l + 1) \cdot (j_s - 2)!$$

$$(D - l)$$

$$(D + j_s - n - l_i)! \cdot (n - j_i)!$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{ik} - j_{sa}^{ik} \leq j_{ik} \leq j_s + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - j_{ik} = l_{ik} \wedge$$

$$D \geq n < n \wedge l = 0 \wedge$$

$$j_s < j_{sa}^i - 1 \vee j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{l_{k_1}, j_{sa}^{ik}, \dots, l_{k_2} - j_{sa}^i\} \wedge$$

$$l > 3 \wedge l = s + l_k \wedge$$

$$l_{k_z}: z = 2 \wedge l_{k_1} = l_{k_2} = 2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l} \sum_{(j_s=l_s+n-D)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - l_{k_2} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_{k_2})!}$$

$$\frac{(n_s - j_i - n - l - 1)!}{(n_s - j_i - n - l - 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_i + l_{ik} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\)} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{(\)} \sum_{j_{ik} = j_{sa}^{ik} + 1}^{j_i + j_{sa}^{ik} - s} \sum_{(j_i = s + 1)}^{(l_{ik} + s - l - j_{sa}^{ik} + 1)} \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\begin{aligned}
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(l_i - 1)!}{(D + j_{sa}^{ik} - n - l_i)! \cdot (j_i - l_i)!} + \\
 & \sum_{j_{sa}^{ik} = l_{ik} - 1}^{(l_i - 1)} \sum_{j_{ik} = l_{ik} - j_{sa}^{ik} + 1}^{(l_i - l + 1)} \sum_{j_i = l_{ik} + s - l - j_{sa}^{ik} + 2}^{(n - j_s + 1)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(\)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{lk}-s}^{(l_{ik}+s-l-j_{sa}^{lk})} \sum_{(s+1)}^{(n_i+1)}$$

$$\sum_{n+l}^n \sum_{(n_i=n_i+1)}$$

$$\frac{(n_i + j_s + j_{sa}^{lk} - s - \dots - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_i + j_s + j_{sa}^{lk} - s - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq \dots \wedge l_s \leq D - n \wedge \dots$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{lk} + 1 \wedge \dots + j_{sa}^{lk} - 1 \leq j_{ik} \leq j_i + j_{sa}^{lk} - s \wedge$$

$$j_{ik} - s - j_{sa}^{lk} \leq j_i - \dots \wedge$$

$$l_{k_1} - j_{sa}^{lk} - 1 = l_s \wedge l_i - j_{sa}^{lk} - s > l_{ik} \wedge$$

$$l_i \leq D + s - \dots \wedge$$

$$D > n < n \wedge l = l_{k_1} > 0 \wedge$$

$$j_{sa}^{lk} < j_{sa}^i - \dots \wedge j_{sa}^s = j_{sa}^{lk} - 1 \wedge$$

$$s: \{j_{sa}^i, l_{k_1}, j_{sa}^{lk}, \dots, l_{k_2}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + l_{k_1} \wedge$$

$$l_{k_2}: z = 2 \wedge l_{k_2} = l_{k_1} + l_{k_2} \Rightarrow$$

$$fzS_{j_s, j_{ik}, j_i} = \sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\sum_{j_{ik}=j_{s_a}^{ik}+1}^{j_i+j_{s_a}^{ik}-s} \sum_{(j_i=s+l)}^{(l_s+s-l)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_i+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+l_{k_2})}^{(n_i+j_{ik}-j_i-l_{k_2})}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{k_2} - 1)!}{(j_i - j_{k_2} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_{k_2})!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{s_a}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{s_a}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\sum_{j_{ik}=j_{s_a}^{ik}+1}^{l_s+j_{s_a}^{ik}-l} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\begin{aligned}
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_{ik} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - n - 1)! \cdot (n - j_i)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa} - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (l_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{(j_i=s+1)}^{()} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{()} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, l_i}^{j_i} = \sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=l}^{()} \sum_{j_s=j_{ik}+s-l_{ik}}^{()} \sum_{i=l+1}^{()} \sum_{j_{ik}=j_{sa}^{ik}}^{()} \sum_{j_i=j_{ik}+s-j_{sa}^{ik}}^{()} \sum_{k_1=0}^{()} \sum_{k_2=0}^{()} \frac{(n_i + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\geq n < n \wedge l \neq i \wedge l \leq D - n + 1 \wedge$$

$$1 \leq j_i \leq j_{ik} - j_{sa}^{ik} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$j_s - j_{sa}^{ik} = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

$$\sum_{n_{ik}=n_{is}-j_{ik}+1}^{n_{is}+\mathbb{k}-(n_{is}+\mathbb{k}-j_{ik})}^{(n_i-l+1)}$$

$$\sum_{n_{ik}=n_{is}-j_{ik}+1}^{n_{is}+\mathbb{k}-1}^{(n_i-l+1)}$$

$$\frac{(n_{is}-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!}$$

$$\frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_i-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_s-\mathbb{k}_2-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-\mathbb{k}_2)!}$$

$$\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!}$$

$$\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!}$$

$$\frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!}$$

$$\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_i - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l_i - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_i \wedge$

$l_i \leq D + s - n \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge$

$s < j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \mathbb{k}_2, j_{sa}^s \wedge$

$s > 2 \wedge s = s + \mathbb{k}$

$\mathbb{k}_z: z = \dots \wedge \mathbb{k} = \mathbb{k}_1 + \dots \Rightarrow$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_s)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - \mathbb{k}_2 - 1)!}{(n_s + j_s - \mathbf{n} - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa} - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (l_i + j_{sa} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + \mathbf{n} - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}_1}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}_1-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$j_s, j_{ik}, j_i = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_i-l+1)} \sum_{j_{ik}=j_s+l_{ik}-l_s}^{(l_i-l+1)} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})} \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=1}^{(l_s - l + 1)} \sum_{j_s=2}^{(j_s - 1)} \sum_{j_{ik}=j_s + l_{ik}}^{(j_{ik} - 1)} \sum_{j_i=j_{ik} + s - j_{sa}^{ik}}^{(j_i - 1)} \sum_{j_{ik} + k}^{(j_{ik} - 1)} \sum_{n_{is}=n + k - j_s + 1}^{(n_{is} - 1)} \sum_{k_1=n_{is} + j_{sa}^{ik} - k - k_1}^{(k_1 - 1)} \sum_{k_2=n_s = n_{ik} + j_{ik} - j_i - k_2}^{(k_2 - 1)} \frac{(n_i + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l \leq D - n + 1 \wedge$$

$$1 \leq j_i \leq j_{ik} - j_{sa}^{ik} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$j_{sa}^{ik} - j_{sa}^{ik} = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$s > 3 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_{ik}+s-l-j_{sa}^{ik}+1)}^{(n-D)}$$

$$\frac{(n_{ik}+l_s-l_{ik}-j_{sa}^{ik})!}{(n_{ik}+l_s-l_{ik}-j_{sa}^{ik}-1)!} \cdot \frac{(n_{ik}+l_s-l_{ik}-j_{sa}^{ik}-1)!}{(j_s-2)! \cdot (n_{ik}+l_s-l_{ik}-j_{sa}^{ik}-1)!}$$

$$\frac{(n_{ik}+l_s-l_{ik}-j_{sa}^{ik}-1)!}{(j_{ik}+l_i-1)! \cdot (n_{ik}+l_s-l_{ik}-j_{sa}^{ik}-1)!}$$

$$\frac{(n_{ik}-n_s-l_{k_2}-1)!}{(j_i-l_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-l_{k_2})!}$$

$$\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!}$$

$$\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!}$$

$$\frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!}$$

$$\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} +$$

$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}-l+1} \sum_{(j_i=l_{ik}+s-l-j_{sa}^{ik}+2)}^{(l_i-l+1)}$$

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$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - l_{k_2} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_{k_2})!} \cdot \\
 & \frac{(n_s - j_i - n - l - 1)!}{(n_s - j_i - n - l - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_s - l_{ik} - s)!}{(j_{ik} + l_{k_2} - j_i - l_{k_2})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{\binom{D}{j_s}} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{\binom{D}{j_s}} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \sum_{(j_i=l_i+n-D)}^{(j_{ik}+s-l-j_{sa}^{ik}+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{\binom{D}{j_s}} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}
 \end{aligned}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\quad)} \sum_{(j_s = j_{ik} + l_s - l_{ik})} \sum_{j_{ik} = j_{sa}^{ik} + 1}^{j_i + j_{sa}^{ik} - s} \sum_{(j_i = l_i + n - D)}^{(l_s + s - l)} \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\begin{aligned}
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(l_i - 1)!}{(D + j_{ik} - n - l_i)! \cdot (j_i)!} + \\
 & \sum_{j_{ik}=j_{sa}^{ik}-l}^{j_{ik}=j_{sa}^{ik}-1} \sum_{j_i=l_s-l_{ik}}^{(l_i-l+1)} \sum_{j_i=l_s+s-l+1}^{(n_i-j_s+1)} \\
 & \sum_{n_i=n+\mathbb{k}_1}^n \sum_{(n_{is}=n+\mathbb{k}_1-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-)} \sum_{(=l_i+n-D)}^{()}$$

$$\sum_{(=n+k)}^n \sum_{(n_i=n_i+k)}^{(n_i+k+1)}$$

$$\frac{\sum_{(n_{ik}=n_{is}-)}^{()} \sum_{(j_{ik}=j_{ik}-k_1)}^{()} \sum_{(=j_i-k_2)}^{()}}{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!} \cdot \frac{(n_i - n - k_1 - k_2)! \cdot (n_i + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n_i + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq 1 \wedge l_s \leq D - n - 1 \wedge$$

$$1 < j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i - n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i - j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_s \leq D + j_s + s - n - 1 \wedge$$

$$D > n - 1 \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^{ik_1}, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned}
 f_z^S_{j_s, j_{ik}, j_i} &= \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)} \\
 &\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j_i=l_i+n-\quad)}^{(l_i-l+1)} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{ik}=n+k_2-\quad}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+\quad)}^{(n_i+j_{ik}-j_i-k_2)} \\
 &\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_s - j_i + 1)!} \cdot \\
 &\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \cdot \\
 &\frac{(n_{ik} - \quad - k_2 - 1)!}{(j_i - \quad - 1)! \cdot (n_s + j_{ik} - n_s - j_i - k_2)!} \cdot \\
 &\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 &\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 &\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 &\sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)} \\
 &\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
 &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_{ik} - k_2)!} \cdot \\
 & \frac{(n_s - n_{is} - 1)!}{(n_s + j_{ik} - n - 1)! \cdot (n - n_{is})!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa} - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (l_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-k_2)}^{()} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, j_i} = \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot$$

$$\begin{aligned}
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=0}^{l_i - l} \sum_{j_s = j_{ik} + l_s - k}^{l_i - l + 1} \sum_{j_{ik} = l_i + k}^{l_i - l + 1} \sum_{j_{sa}^{ik} = D - s}^{l_i - l + 1} \sum_{j_i = j_{ik} + s - j_{sa}^{ik}}^{l_i - l + 1} \\
& \sum_{n_i = n + k}^{n_i - j_s + 1} \sum_{n_{is} = n + k - j_s + 1}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_i - j_{ik} - k_1} \sum_{n_s = n - j_i + 1}^{(n_{ik} + j_{ik} - j_i - k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot
\end{aligned}$$

$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\cdot)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_i^s)}^{(\cdot)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_k} \sum_{(n_{ik}+j_{ik}-j_i^s)}^{(\cdot)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - l_k - l_s - j_{sa}^s)!}{(n_i - n - l_k - l_s - j_{sa}^{ik} - j_{sa}^s)! \cdot (n_{is} + j_{sa}^{ik} - l_k - j_{sa}^s)!}$$

$$\frac{(l_k - l - 1)!}{(l_k - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq n - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_s^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq l_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + l_s - j_s^{ik} \leq j_i \leq n - l_i$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_i + j_s - s > 0 \wedge$$

$$D + l_s - n < l_i \leq D - l_s + s - l - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < l_i - 1 \wedge j_{sa}^{ik} - j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^s, \dots, k_2, j_{sa}^s\} \wedge$$

$$3 \wedge l_s - s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s j_{ik} j_i} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=2)}^{(\cdot)}$$

GÜLDENWA

$$\begin{aligned}
 & \sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_1})} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_i+1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_{ik}-n_{ik}-l_{k_2})!}{(j_i-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_s-j_i-l_{k_2})!} \cdot \\
 & \frac{(n_s-n-j_i-1)! \cdot (n-j_i)!}{(n_s-n-j_i-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_i+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \\
 & \sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}
 \end{aligned}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_i - s)!}{(j_{ik} + l_i - l - s)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{(l_{ik} - l - j_{sa}^{ik} + 2)} \sum_{(j_s = l_i + n - D - s + 1)} \\
 & \sum_{j_{ik} = j_s + l_{ik} - l_s} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz = \sum_{k=l}^{l_i+n-D-s} \sum_{j_s=2}^{l_i+n-D-s} j_{ik} j_i$$

$$\sum_{k=j_s+l_{ik}-l_s}^{l_i-l+1} \sum_{j_i=l_i+n-D}^{l_i-l+1}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}$$

$$\sum_{j_{ik}=j_s+l_{ik}}^{(l+1)} \sum_{(j_{sa}^{ik})}$$

$$(n_i - j_s + 1)$$

$$\sum_{n_i+k}^{(n_i+n+k-j_s+1)} \sum_{(n_i+k-j_s+1)}$$

$$n_{is} + j_{ik} - k_1 \quad (n_{ik} + j_i - k_2)$$

$$\sum_{n_i+n+k_2-j_{ik}}^{(n_s=n-j_i+1)} \sum_{(n_s=n-j_i+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$(n_{is} - n_{ik} - 1)!$$

$$(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!$$

$$(n_{ik} - n_s - k_2 - 1)!$$

$$(j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!$$

$$(n_s - 1)!$$

$$(n_s + j_i - n - 1)! \cdot (n - j_i)!$$

$$(l_s - l - 1)!$$

$$(l_s - j_s - l + 1)! \cdot (j_s - 2)!$$

$$(l_i + j_{sa}^{ik} - l_{ik} - s)!$$

$$(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!$$

$$(D - l_i)!$$

$$(D + j_i - n - l_i)! \cdot (n - j_i)! -$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}$$

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$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum^{()}$$

$$\sum_{n_i=n+l_k}^n \sum^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - j_s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s - j_{sa}^{ik} - j_{ik} - j_{sa}^{is})!} \cdot \frac{(l_s - l - 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l)!}{(D + j_s - n - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$

$D + l_s + s - n - l_i + 1 \leq l$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s - j_{sa}^{ik} - 1 \leq j_{ik} - j_i + j_{sa}^{is} = s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - l_{k_1} + 1 = l_s - j_{sa}^{ik} + j_{sa}^{is} - s > l_{ik}$

$D + s - n < l_i \leq D + l_s + s - n - l_i \wedge$

$D \geq n < n \wedge l = l_{k_1} = 0 \wedge$

$j_{sa}^{ik} < j_{sa}^{is} - 1 \wedge j_{sa}^{is} = j_s^{is} - 1 \wedge$

$s: \{j_s^{is} - l_{k_1}, j_{sa}^{is}, j_{sa}^{is}\} \wedge$

$s > 3 \wedge s = s + l_k \wedge$

$l_{k_1}; z = 2, l_{k_2} = l_{k_1} + l_{k_2} \Rightarrow$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum^{()}_{(j_s=j_{ik}+l_s-l_{ik})}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}-l+1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_i-n_{is}+1)!(n_{is}+j_{ik}-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_{ik}-n_{ik}-l_{k_2}-1)!}{(j_i-j_{ik}-1)!(n_{ik}+j_{ik}-n_s-j_i-l_{k_2})!} \cdot \\
 & \frac{(n_s-j_i-n-1)!(n-j_i)!}{(n-1)!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)!(j_s-2)!} \cdot \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_i+l_i-j_i-l_{ik})!(j_i+j_{sa}^{ik}-j_{ik}-s)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)!(n-j_i)!} \cdot \\
 & \sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \sum_{(j_i=l_i+n-D)}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{()} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{()}
 \end{aligned}$$

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$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq i - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z \mathcal{S}_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{(\cdot)}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_s + j_{sa}^{ik} - l} \sum_{(j_i = l_i + n - D)}^{(l_i - l + 1)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - 1)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - j_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{j_s=1}^{l_s} \sum_{j_{ik}=j_{ik}+l_s-l_{ik}}^{l_s} \\
& \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{l_s+s-l} \sum_{j_i=l_i+n-D}^{l_s+s-l} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\cdot)} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
\end{aligned}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq i \wedge l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned} & \sum_{j_s=2}^{(l_{ik}-l-j_{sa}^{ik}+1)} \sum_{i_{ik}=j_s+l_{ik}-l_s}^{(l_i-l+1)} (j_i=l_i+n-D) \\ & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\ & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\ & \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \\ & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \end{aligned}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=l}^{(l_{ik} - l - j_{sa}^{ik} + 2)} \sum_{(j_s = l_i + n - D - s + 1)}^{(l_{ik} - l - j_{sa}^{ik} + 2)} \sum_{j_{ik} = j_s + l_{ik} - l_s}^{(j_s + l_{ik} - l_s - j_{sa}^{ik})} \sum_{n+l}^{(n_i - l_s + 1)} \sum_{n+l}^{(n_i - l_s + 1)} \frac{(n_i - l_s + 1)!}{(n_i - l_s + 1)! \cdot (n_i - l_s + 1)!} \cdot \frac{(n_i - l_s + 1)!}{(n_i - l_s + 1)! \cdot (n_i - l_s + 1)!} \cdot \frac{(l_s - l - 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq 0 \wedge l_s \leq D - n \wedge l_s \neq 0$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} - s - j_{sa}^{ik} \leq j_i - s \wedge$$

$$l_{ik} - j_{sa}^{ik} - 1 > l_s \wedge l_i - j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} \wedge$$

$$D - n < l \wedge l = l_{ik} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, l_{k_1}, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + l_{k_1} \wedge$$

$$l_{k_2}: z = 2 \wedge l_{k_2} = l_{k_1} + l_{k_2} \Rightarrow$$

$$\begin{aligned}
 f_{zS} S_{j_s, j_{ik}, j_i} &= \sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}^{(j_s - l)} \\
 &\quad \sum_{j_{ik} = j_i + l_{ik} - l_i}^{(l_s + s - l)} \sum_{(j_i = s + 1)}^{(n_i - j_s + 1)} \\
 &\quad \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\
 &\quad \sum_{n_{is} + j_s - j_{ik}}^{(n_i + j_{ik} - l_i - k_2)} \sum_{n_{ik} = n + k_2 - 1}^{(n_s - n - j_i + 1)} \\
 &\quad \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
 &\quad \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik})!} \cdot \\
 &\quad \frac{(n_{ik} - n_{ik} - k_2 - 1)!}{(j_i - j_s - 1)! \cdot (n_{is} + j_{ik} - n_s - j_i - k_2)!} \cdot \\
 &\quad \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 &\quad \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 &\quad \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 &\quad \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 &\quad \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}^{(l_s - l + 1)} \\
 &\quad \sum_{j_{ik} = j_i + l_{ik} - l_i}^{(l_i - l + 1)} \sum_{(j_i = l_s + s - l + 1)}^{(l_i - l + 1)} \\
 &\quad \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)}
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_s)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - j_i - \mathbf{n} - 1)! \cdot (n - j_i)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + \mathbf{n} - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=s+1)}^{(\quad)} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S j_{ik} j_i = \sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s + j_{sa}^{ik} - l} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!}$$

$$\begin{aligned}
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{l_i-l+1} \frac{(-1)^{k-l}}{(j_s - k)!} \cdot \\
 & \sum_{j_{ik}=j_{sa}^{ik}-l+1}^{l_i-l+1} \frac{(-1)^{j_{ik}-j_{sa}^{ik}}}{(j_i - j_{ik})!} \cdot \\
 & \sum_{n_i=n+k}^{n_i-l+1} \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \cdot \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_i-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \cdot \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot
 \end{aligned}$$

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$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+l_i-l)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n_{ik}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_k} \sum_{(n_{ik}+j_{ik}-j_i-l)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - l_k - j_{sa}^s)!}{(n_i - n - l_k - j_s - 1)! \cdot (n_{is} + j_{sa}^{ik} - j_{sa}^s)!} \cdot \frac{(l_i - l - 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq n - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa}^{ik} + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq j_{sa}^{ik} + j_{sa}^{ik} - 1 \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > 0 \wedge l_i + j_s - s = l_k \wedge$$

$$l_{ik} \leq j_{sa}^{ik} + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, l_{k_1}, \dots, l_{k_2}, j_{sa}^i\} \wedge$$

$$2 \wedge z = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}$$

$$\frac{(n_i - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_{ik} - l_{k_2})!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_{k_2})!}$$

$$\frac{(n_i - 1)!}{(n_s - j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{lk} + 1)!}{(j_s - l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{lk} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{lk}-1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{()}$$

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$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=l_i+n-D)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - l_s + 1)!} \cdot \\
 & \frac{(l_i - l_j)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{l+1} \sum_{(j_s=2)}^{l+1} \\
 & \sum_{l_k=j_i+l_{ik}-l_i}^{l_i-l+1} \sum_{(j_i=l_s+s-l+1)}^{l_i-l+1} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

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$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_i=j_i+l_{ik}}$$

$$\sum_{n+l_k} \sum_{(n+l_k-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}-j_{ik}-l_{k_1}} \sum_{n_{ik}+j_{ik}-j_i-l_{k_2}}$$

$$\frac{(n_i + j_s - j_{sa}^{ik} - j_{ik} - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - l_{k_1} - l_{k_2} - j_{sa}^s)! \cdot (n_i + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq l \wedge l_s \leq n - 1 \wedge$$

$$1 \leq j_s - j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} < j_i \leq n$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - 1 \leq l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D > n \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+l_i}^n \sum_{(n_i+j_s+1)}^{(n_i+j_s+1)}$$

$$\sum_{(n_{is}+j_s-j_{ik}-l_i)}^{(n_{ik}+j_{ik}-l_{ik})} \sum_{(n-j_i+1)}^{(n-j_i+1)}$$

$$\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{is} - \mathbb{k}_2 - 1)!}{(n_{is} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=l_s+j_{sa}^{ik}-l-s+1}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - j_i - n - l - 1)!}{(n_s - j_i - n - l - 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_i + l_{ik} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(\)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(\)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-l-s+1}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_s - l)!}{(D + j_i - n - l_i)! \cdot (j_i - l_i)!} + \\
& \sum_{k=0}^{(l_s - l + 1)} \sum_{l_i = D - s + 1}^{(l_s - l + 1)} \\
& \sum_{j_i = j_s + j_{sa}^{ik} - 1}^{l_i + j_s - l - s + 1} \sum_{(j_i = j_{ik} + l_i - l_{ik})}^{()} \\
& \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
& \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_i + n - D - s + 1)}^{(l_s - l + 1)} \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{(j_i - l_k + l_i - l_{ik})} \sum_{n = n + k}^{(n_{is} = n_{is} + 1)} \frac{(n_{ik} = n_{is} + j_{ik} - k_1 - k_2 - j_i - k_2)}{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!} \cdot \frac{(n_i - n_{is} - k_1 - k_2)! \cdot (n_i + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}{(l_s - l - 1)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq 1 \wedge l_s \leq D - n - 1 \wedge$$

$$1 < j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i - n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i - j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_s \leq D + j_s + s - n - 1 \wedge$$

$$D > n - 1 \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned}
 f_{z^S} S_{j_s, j_{ik}, j_i} &= \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \\
 &\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=l_{ik}+n+s-D-j_{ik})}^{(l_s+s-l)} \\
 &\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-1} \sum_{(n_s=n-j_i+l_{k_2})}^{n_{is}+j_s-j_{ik}-1} \\
 &\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 &\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - j_s - n_{ik} - j_{ik})!} \\
 &\frac{(n_{ik} - n_{k_2} - 1)!}{(j_i - j_{k_2} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_{k_2})!} \\
 &\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 &\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 &\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \sum_{(j_i=l_s+s-l+1)}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \\
 &\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} + 1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_{ik} - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - n_{is} - 1)!}{(n_s + j_{ik} - \mathbf{n} - 1)! \cdot (n_{is} - j_{ik} - 1)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + l_i - \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!} \cdot \\
 & \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=l_{ik}+\mathbf{n}+s-D-j_{sa}^{ik})}^{(\quad)} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fzS \quad j_{ik} j_i = \sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s + j_{sa}^{ik} - l} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot$$

$$\frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot$$

$$\begin{aligned}
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{j_s - l + 1} \frac{(-1)^{k-l}}{(j_s - k)!} \cdot \\
 & \sum_{j_{ik} = j_{sa}^{ik} - l + 1}^{j_i - l + 1} \binom{j_i - l + 1}{j_{ik} - j_{sa}^{ik} - l + 1} \cdot \\
 & \sum_{n_i = n + k}^{n_i - j_s + 1} \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \cdot \\
 & \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_i - j_{ik} - k_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - k_2)} \cdot \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot
 \end{aligned}$$

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$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+l_i-l)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_k} \sum_{(n_{ik}+j_{ik}-j_i)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - l_k - l_i - j_{sa}^s)!}{(n_i - n - l_k - l_i - j_{sa}^s)! \cdot (n_{ik} + j_{sa}^{ik} - l_k - j_{sa}^s)!}$$

$$\frac{(l_k - l - 1)!}{(l_k - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq n - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq l_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + l_i - j_{sa}^{ik} \leq j_i \leq n$$

$$l_{ik} - j_{sa}^{ik} + 1 > 0 \wedge l_i + j_s - s = 1 \wedge$$

$$D + l_i - n < l_i \leq D - l_s + s - l_i - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0$$

$$j_{sa}^{ik} < j_i - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^s, \dots, \mathbb{k}_2, j_{sa}^s\} \wedge$$

$$3 \wedge l_i - s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{(j_s=2)}^{(l_{ik}+n-D-j_{sa}^{ik})}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \binom{(\quad)}{j_i=j_{ik}+l_i-l_{ik}} \\
 & \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-1)!}{(j_{ik}-j_i+1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!} \cdot \\
 & \frac{(n_{ik}-n_{ik}-l_{k_2})!}{(j_i-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_s-j_i-l_{k_2})!} \cdot \\
 & \frac{(n_s-n_j-i-1)!}{(n_s-n_j-i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s-l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(\quad)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \binom{(\quad)}{j_i=j_{ik}+l_i-l_{ik}} \\
 & \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_{ik} + n - D - j_{sa}^{ik} + 1)} \\
 & \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1} \sum_{(j_i = j_{ik} + l_i - l_{ik})}^{()} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{()} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$

$$D + l_s + s - n - l_i + 1 \leq l \leq l_i - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z S_{j_s, n, l_i} = \sum_{k=l}^{(s-l+1)} \sum_{(j_s=2)}^{(l_i-l+1)} \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_i-l+1)} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)} \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!} \cdot \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_s = j_i + l_{ik}}^{+s-l} \sum_{(j_{ik} - l_{ik} - D)}$$

$$\sum_{n+l_k}^{(n_i - j_s + 1)} \sum_{(n_i + l_k - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} - j_{ik} - l_{k_1}} \sum_{(n_{ik} + j_{ik} - j_i - l_{k_2})}$$

$$\frac{(n_i + j_s - j_{sa}^{ik} - j_{ik} - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i + j_s - j_{sa}^{ik} - j_{ik} - l_{k_1} - l_{k_2} - j_{sa}^s)! \cdot (n_i + j_s - j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq 1 \wedge l_s \leq n - 1 \wedge$$

$$D + l_s - s - n - l_i + 1 \leq l \leq i l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} - j_s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + l_s - s - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = l_k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, l_{k_1}, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_{ik}=n_s-j_{ik}+1}^{n_{ik}+\mathbb{k} (n_{is}=n+\mathbb{k}-j_{ik})}^{(n_i-l+1)}$$

$$\sum_{(j_{ik}=j_s-j_{ik}-\mathbb{k}_1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_{is}-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!}$$

$$\frac{(n_{ik}-n_{ik}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik})!}$$

$$\frac{(n_{ik}-n_s-\mathbb{k}_2-1)!}{(j_i-\mathbb{k}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-\mathbb{k}_2)!}$$

$$\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!}$$

$$\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!}$$

$$\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_i+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_1)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$

$D + l_s + s - n - l_i + 1 \leq l \leq i - 1$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i \leq j_i + j_{sa}^{ik} -$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik}$

$D + s - n < l_i \leq D + l_s + s - n - 1$

$D \geq n < n \wedge l = i \wedge l_s \geq 0$

$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^{ik} = j_{sa}^i - 1$

$s: \{1, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_1, j_{sa}^i\} \wedge$

$s > 3 \wedge l_s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k}_1 = \mathbb{k}_2 \Rightarrow$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_{ik}+s-l-j_{sa}^{ik}+1)}$$

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} - n_{ik} - j_{ik})!} \cdot \\
 & \frac{(n_{ik} - n_s - l_{k_2} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_{k_2})!} \cdot \\
 & \frac{(n_s - j_i - n - l - 1)!}{(n_s - j_i - n - l - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_i + l_{ik} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \\
 & \sum_{k=l}^{\binom{D}{j_s}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{D}{j_s}} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_s+s-l)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{\binom{D}{j_s}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{\binom{D}{j_s}} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}
 \end{aligned}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq i \wedge l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik})!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{j_{sa}^{ik}=1}^{(j_{ik} - j_s - j_{sa}^{ik} + 1)} \sum_{l_s=0}^{j_{ik} - l} \sum_{j_i=l_{ik}+n-D}^{(j_i=j_{ik}+l_i-l_{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(j_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$l_i \wedge l = j_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

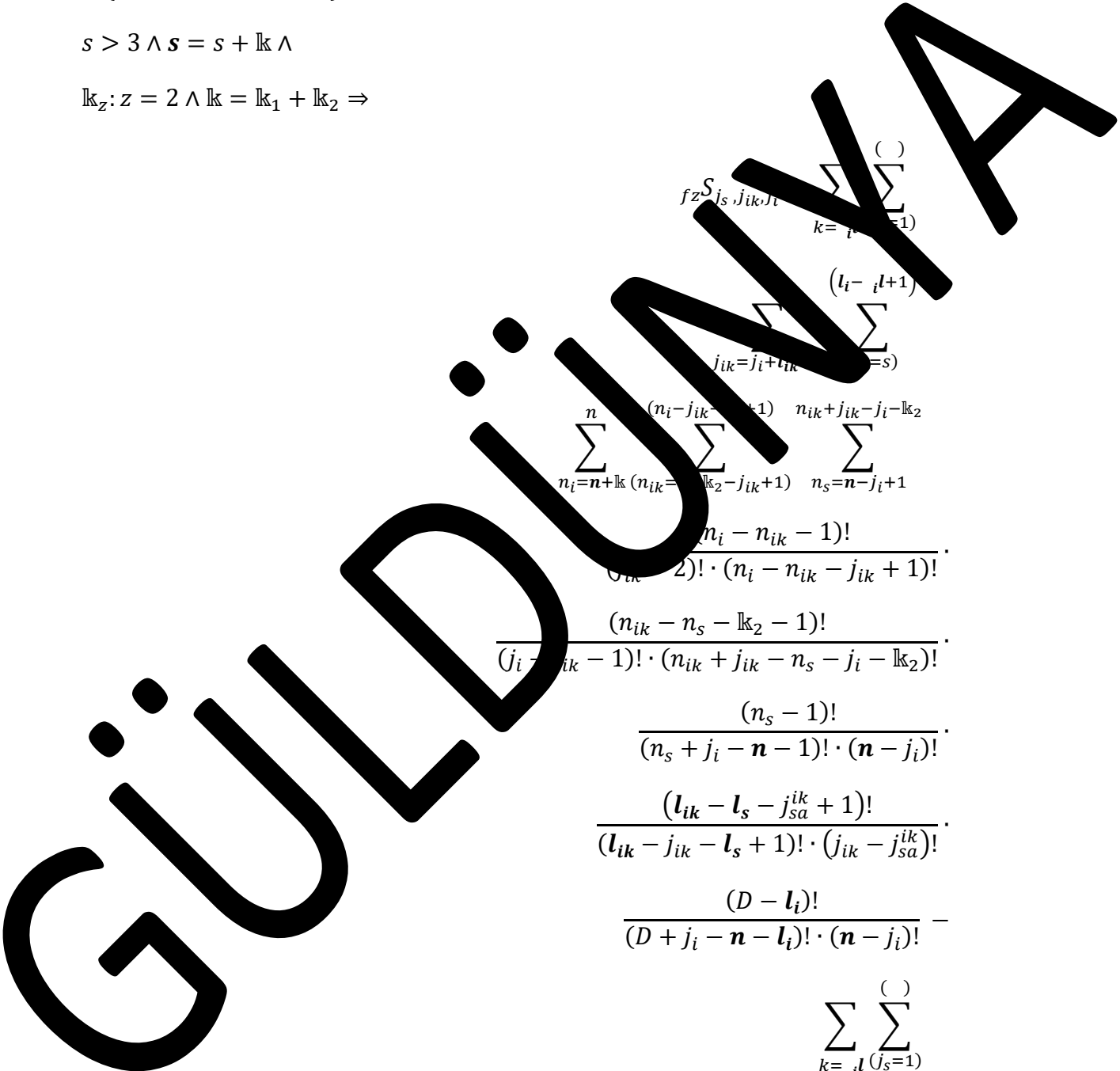
$$s > 3 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, l} \sum_{k=i}^{()} \sum_{j_s=1}^{()} \frac{(l_i - i^{l+1})}{j_{ik} = j_i + l_{ik}} \sum_{n_i=n+k}^n \sum_{n_{ik}=\dots}^{(n_i - j_{ik} - 1) + 1} \sum_{n_s=n-j_i+1}^{n_{ik} + j_{ik} - j_i - k_2} \frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!} \cdot \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=i}^{()} \sum_{j_s=1}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{()} \sum_{j_i=s}^{()}$$



$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{(\cdot)}{n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1}} \sum_{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l = j_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s = j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 3 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=1}^n \sum_{\binom{(\cdot)}{j_s=1}}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}-i^{l+1}} \sum_{\binom{(\cdot)}{j_i=j_{ik}+l_i-l_{ik}}}^{(\cdot)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{(\cdot)}{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} + 1)!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=1}^{(j_s)} \sum_{j_{sa}^{ik}}^{(j_i)}$$

$$\sum_{n_i=n+l_k}^n \sum_{n_i=j_{ik}-l_{k_1}}^{(j_i)} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_{k_2}}^{(j_i)}$$

$$\frac{(n_i + j_{sa}^{ik} - j_{ik} - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n - n - l_{k_1} - l_{k_2})! \cdot (n + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i \leq j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i < n \wedge$

$l_{ik} - j_{ik} + 1 = l_s \wedge l_{ik} + j_{sa}^{ik} - s > l_{ik} \wedge$

$D \geq n < n \wedge l = k > 0 \wedge$

$j_{sa}^{ik} > 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}^i\} \wedge$

$l_{k_2} = s + k \wedge$

$l_{k_2}: z = 2 \wedge k = l_{k_1} + l_{k_2} \Rightarrow$

$$f_z^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(j_s)} \sum_{j_{sa}^{ik}=j_{ik}-j_{sa}^{ik}+1}^{(j_i)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_{ik}+n-D}^{j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_1})} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}-n_{ik}-j_{ik}-l_{k_1})!} \cdot \\
 & \frac{(n_{ik}-l_{k_2}-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_s-j_i-l_{k_2})!} \cdot \\
 & \frac{(n_i-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_i+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=l}^{\binom{()}{}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{()}{}} \\
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=l_{ik}+s-l-j_{sa}^{ik}+2)}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_i - s)!}{(j_{ik} + l_i - l - 1)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \\
 & \sum_{j_{ik} = j_i + j_{sa}^{ik} - s}^{(l_{ik} + s - l - j_{sa}^{ik} + 1)} \sum_{(j_i = l_i + n - D)}^{(\cdot)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1}^{(\cdot)} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{(\cdot)} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned} &= \sum_{j_{sa}^{ik} - j_{sa}^{ik} + 1}^{(j_{sa}^{ik} - j_{sa}^{ik} + 1)} \sum_{(j_i = l_i + n - D)}^{(l_s + s - l)} \\ &= \sum_{j_{ik} = n + j_{sa}^{ik} - D - 1}^{n} \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \\ &= \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - k_2)} \\ &= \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\ &= \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\ &= \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \\ &= \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\ &= \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\ &= \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \end{aligned}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=l_i+s-l+1)}^{(l_i-l+1)}$$

$$\sum_{n+l_k}^n \sum_{(n_{is}=n+l_k+1)}^{(n_{is}+1)}$$

$$\sum_{n_{ik}=l_k-j_{ik}}^{n_{is}+j_s-j_{ik}-l_k} \sum_{(j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_k)}$$

$$\frac{(n_{is} - n_{ik} - 1)!}{(j_i - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - l_k - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_k)!}$$

$$\frac{(n_{ik} - n_s - l_k - 1)!}{(j_i - l_k - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_k)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

$$\sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_1)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l_i - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^l - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^l\} \wedge$$

$$s \cdot 4 \wedge s = \mathbb{k}_1 + \mathbb{k}_2 \wedge$$

$$\mathbb{k}_z: \mathbb{k}_z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
& \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - k_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa} - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (l_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
& \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}
\end{aligned}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{j_{ik}=l_{ik}}^{l_{ik}-1} \sum_{j_{sa}^{ik}=j_{ik}+1}^{(j_{ik}+j_{sa}^{ik}-j_{ik}-s)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_s=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(l_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$n_s \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{l=1}^{()} \sum_{(j_s=j_{ik}+1)}^{()} \sum_{(i)}^{()} \sum_{(j_i=l_i)}^{()} \sum_{(j_i=l_i+n-D)}^{()} \sum_{(j_i=l_i+n-D)}^{()} \sum_{(n)}^{()} \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{()} \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{()} \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{()} \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{()} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(n_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\begin{aligned}
 & \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_i=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{i_1}-1}^{\Delta} \sum_{(n_s=n-j_i+l_{k_2})}^{\Delta} \\
 & \frac{(n_s - n_{i_1} - 1)!}{(j_s - 2)! \cdot (n_i - j_s + 1)!} \\
 & \frac{(n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \\
 & \frac{(n_{ik} - l_{k_2} - 1)!}{(j_i - j_{i_1} - 1)! \cdot (n_i + j_{ik} - n_s - j_i - l_{k_2})!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)}
 \end{aligned}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l_i - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$

$s \cdot 4 \wedge s = \dots + \mathbb{k} \wedge$

$\mathbb{k}_z: \dots = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_i+n-D-s)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - \mathbf{n} - 1)! \cdot (n - j_i)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l_i - 1)!}{(l_s - j_s - l_i + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa} - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (l_i + j_{sa} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + l_i - \mathbf{n} - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_i-l+1)} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}
 \end{aligned}$$

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$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 1)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=1}^{(l_{ik} - l - j_{sa}^{ik} + 2)} \sum_{j_s = j_s + j_{sa}^{ik} - 1}^{(j_i = j_{ik} + s - j_{sa}^{ik})} \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_s = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{()}$$

$$\frac{(l_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$n_{ik} \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{(j_s = \dots + n - D)}^{+n-D-s} \sum_{(j_{ik} = j_s + j_{sa}^{ik} - 1)} \sum_{(j_i = l_i + n - D)} \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)} \sum_{(n_{ik} = n - j_{ik} + 1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

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$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_i-l+1)} (j_i=j_{ik}+s-j_{ik}^{ik})$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{is}+j_s-j_{ik}}^{(n_i+j_{ik}-j_i-k_2)} \sum_{n_{ik}=n+k_2-1}^{(n_s-n-j_i)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - k_2 - 1)!}{(j_i - k_2 - 1)! \cdot (n_{is} + j_{ik} - n_s - j_i - k_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(\quad)} (j_i=j_{ik}+s-j_{sa}^{ik})$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - \dots)}$$

$$\frac{(D - l_i)}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i \leq j_i + j_{sa}^{ik} \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik}$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\}$$

$$s > 4 \wedge s = s + \dots \wedge$$

$$\mathbb{k} : z = 2 \wedge \dots = \mathbb{k}_1 + \dots \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_i - l + 1)! \cdot (l_s - j_i - l - 2)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_i - s)!}{(j_{ik} + l_i - l - 1)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\cdot)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\cdot)} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_s, \dots, j_i} = \sum_{k=l}^{()} (j_s = j_{ik} - j_{sa}^{ik} + 1)$$

$$\sum_{j_{ik} = n + j_{sa}^{ik} - D - 1}^{l_s + j_{sa}^{ik} - l} \sum_{(j_i = l_i + n - D)}^{(l_i - l + 1)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_i+n_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} (j_{ik} - j_{sa}^{ik})$$

$$\sum_{(n_i-j_s+1)} \sum_{(n_{ik}+l_k-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_{ik}-l_{k_1}} \sum_{(n_{ik}+j_{ik}-j_i-l_{k_2})}$$

$$\frac{(n_i + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - l_{k_1} - l_{k_2} + j_{sa}^{ik} + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s - s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D > n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, l_{k_1}, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_i-l+1)} \sum_{(j_i=l_i+n-D-j_{ik}+1)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+l_{ik}-j_{sa}^{ik}}^{(n-j_s+1)} \sum_{(n_{is}=n+l_{ik}-j_{sa}^{ik}-j_{ik}+1)}^{(n-j_s+1)}$$

$$\sum_{(j_{ik}=n_{is}-l_{ik}+1)}^{(n_{is}+j_s-j_{sa}^{ik}-j_{ik})} \sum_{(j_i=n-j_{ik}+1)}^{(n_{ik}+j_{ik}-j_{sa}^{ik})}$$

$$\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - l_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} + j_s - 1)! \cdot (n_{ik} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{is} - l_{ik} - \mathbb{k}_2 - 1)!}{(j_{ik} + j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{()} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$

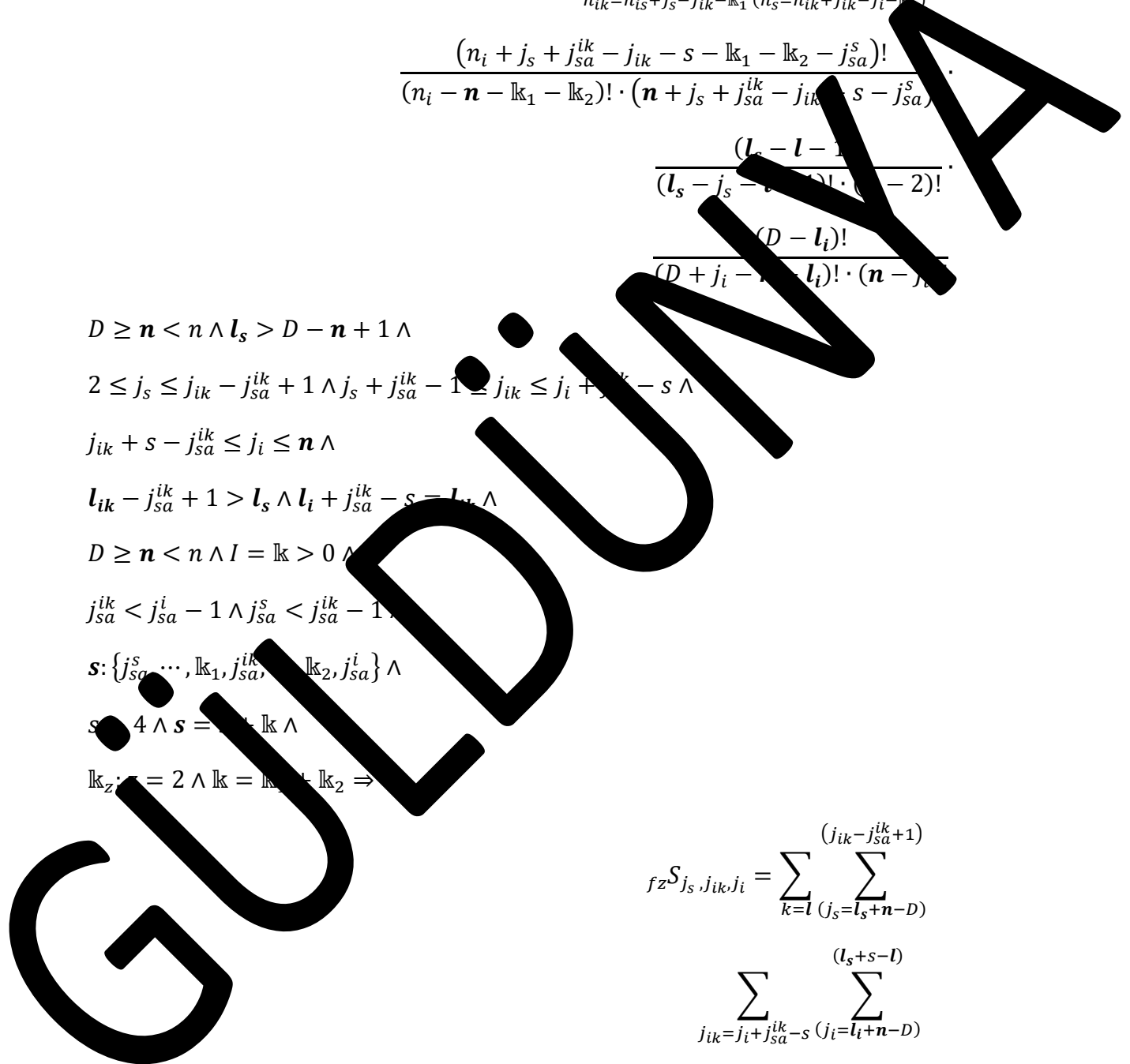
$s \geq 4 \wedge s = \mathbb{k}_1 + \mathbb{k}_2 \wedge$

$\mathbb{k}_z: \mathbb{k}_z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$



$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - \mathbf{n} - 1)! \cdot (n - j_i)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l + 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + \mathbf{n} - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_i-l+1)} \sum_{(j_i=l_s+s-l+1)} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}
 \end{aligned}$$

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$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{j_{sa}^{ik} = j_i - j_{sa}^{ik} + 1}^{(j_s - l)} \sum_{j_i = j_i + j_{sa}^{ik} - s}^{(l_s + s - l)} \sum_{n_i = n + \mathbb{k}}^n \sum_{n_{is} = n + \mathbb{k} - j_s + 1}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2}^{(j_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!} \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$n \leq n_s \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{l=1}^{\mathbb{k}-j_{sa}^{ik}+1} \sum_{(j_s=n-D)}^{l+j_{sa}^i} \sum_{(j_{sa}^i=j_{ik}+s-j_{sa}^{ik})}^{l+j_{sa}^i} \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{n} \sum_{(n_{ik}=n_{is}-j_{ik}-\mathbb{k}_1)}^{n_{is}-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{n_{ik}+j_{ik}-j_i-\mathbb{k}_2} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

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$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-l-s+1}^{l_s+j_{sa}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n-k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_s+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+k_2)}^{n_i+j_{ik}-n-k_2} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s - n_{ik} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\
 & \frac{(n_{ik} - n_{ik} - k_2 - 1)!}{(j_i - j_s - 1)! \cdot (n_{is} + j_{ik} - n_s - j_i - k_2)!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=l} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}
 \end{aligned}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^l - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^l\} \wedge$$

$$s \cdot 4 \wedge s = \mathbb{k}_1 + \mathbb{k}_2 \wedge$$

$$\mathbb{k}_z: \mathbb{k}_z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
& \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - k_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 1)!}{(j_s - l_s + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-l-s+1}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}
\end{aligned}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=0}^{(l_s - l + 1)} \sum_{l_i = D - s + 1}^{(n - l_i)} \sum_{j_s = j_s + j_{sa}^{ik} - 1}^{(n_i - j_s + 1)} \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{(n_i - j_s + 1)} \cdot \frac{(j_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$j_i \geq n - l_i \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=1}^{\mathbb{k}} \sum_{(j_s = \dots + n - D)}^{\mathbb{k} - j_{sa}^{ik} + 1} \sum_{(l_s = \dots)}^{\mathbb{k} - j_{sa}^{ik} + 1} \sum_{(j_i = \dots + n + s - D - j_{sa}^{ik})}^{\mathbb{k} - j_{sa}^{ik} + 1} \sum_{(n_i = \dots)}^{\mathbb{k} - j_{sa}^{ik} + 1} \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{\mathbb{k} - j_{sa}^{ik} + 1} \sum_{(n_{ik} = \dots)}^{\mathbb{k} - j_{sa}^{ik} + 1} \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{\mathbb{k} - j_{sa}^{ik} + 1} \sum_{(n_{ik} = \dots)}^{\mathbb{k} - j_{sa}^{ik} + 1} \sum_{(n_s = n - j_i + 1)}^{\mathbb{k} - j_{sa}^{ik} + 1} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{lk}-s}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \sum_{(j_i=l_s+s-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-j_{sa}^{lk}+j_{sa}^{ik}-l_{k_2}} \sum_{(n_s=n-j_i+1)}^{(n_i-j_s+1)} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s - 1)!} \cdot \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \\
 & \frac{(n_{ik} - n_{ik} - l_{k_2} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{is} + j_{ik} - n_s - j_i - l_{k_2})!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \\
 & \sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{lk}-s}^{(l_s+s-l)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(n_i-j_s+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_i \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

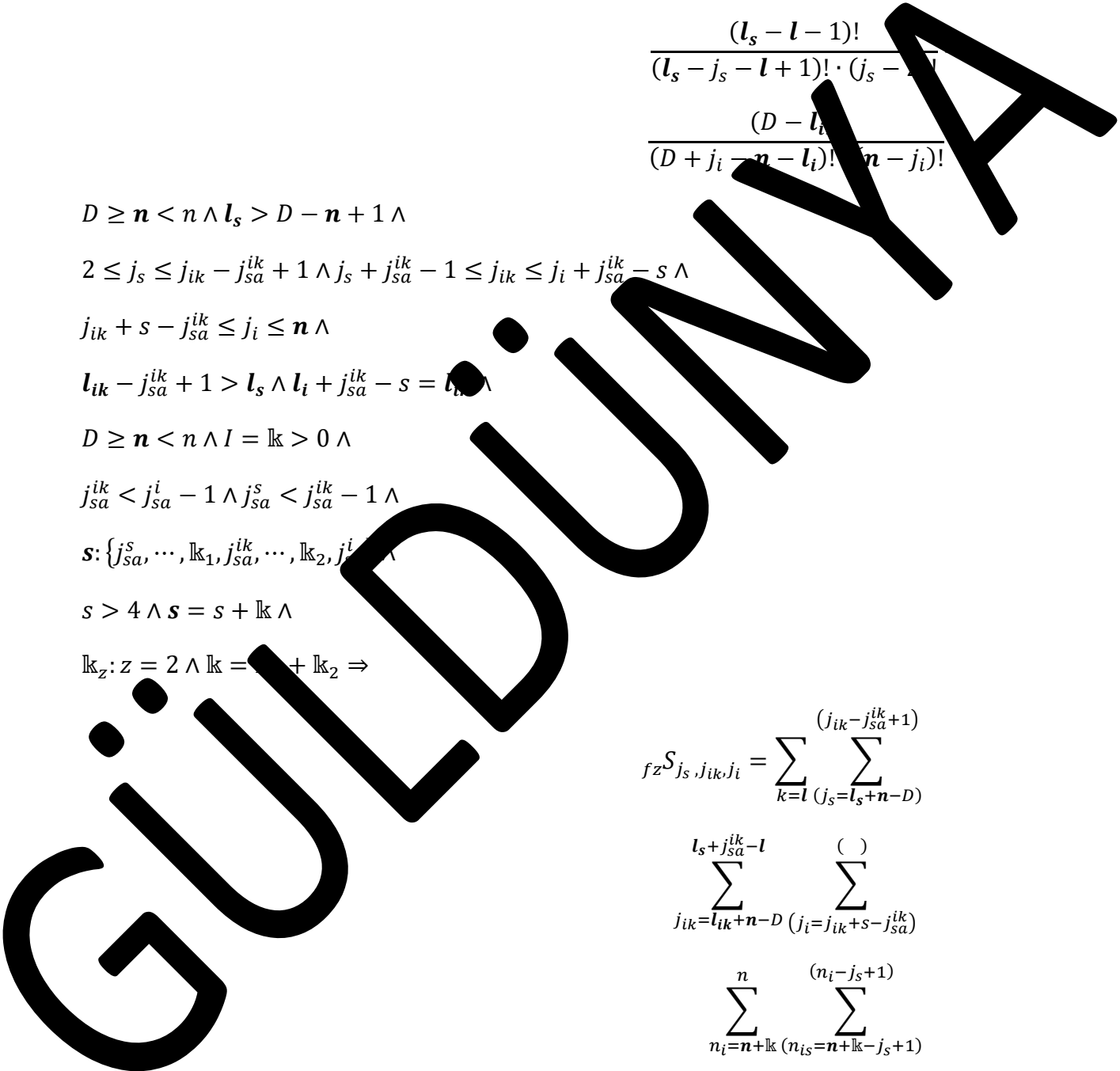
$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)} \sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{\binom{()}{j_i=j_{ik}+s-j_{sa}^{ik}}} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$



$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - l_s + 1)!} \cdot \\
 & \frac{(n - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{l+1} \sum_{(j_s=l_s+n-D)}^{l+1} \\
 & \sum_{i_s+j_s^{\mathbb{k}}-l+1}^{-l+1} \sum_{(j_i=j_{ik}+s-j_s^{\mathbb{k}})}^{(\cdot)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

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$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = j_{ik} + n - D}^{l_s + j_{sa}^{ik} - l} (j_{ik} - j_s - j_{sa}^{ik})$$

$$\sum_{(n_i - j_s + 1)} \sum_{(n_i - j_s + l_k - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_{ik} - l_{k_1}} \sum_{(n_{ik} + j_{ik} - j_i - l_{k_2})}$$

$$\frac{(n_i + j_s - j_{sa}^{ik} - j_{ik} - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - l_{k_1} - l_{k_2} + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > 2 - n + 1 \wedge$$

$$2 \leq j_s - j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} - j_i \leq n$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} - j_{sa}^s - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned}
 f_{z^S} S_{j_s, j_{ik}, j_i} &= \sum_{k=l}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{(j_s=l_s+n-D)} \\
 &\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})} \\
 &\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+l_{k_2})}^{n_{is}+j_s-j_{ik}-n_{ik}+j_{ik}-l_{k_2}} \\
 &\frac{(n_i-n_{ik}-1)!}{(j_s-2)! \cdot (n_{is}-n_{ik}-j_s+1)!} \\
 &\frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-l_{k_1})!} \\
 &\frac{(n_{ik}-n_{ik}-l_{k_2}-1)!}{(j_i-j_{ik}-1)! \cdot (n_{is}+j_{ik}-n_s-j_i-l_{k_2})!} \\
 &\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
 &\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
 &\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 &\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 &\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)} \\
 &\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})} \\
 &\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

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$$\begin{aligned}
& \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
& \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - k_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(j_s-l+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(j_s-l+1)} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(j_s-l+1)} \\
& \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1}^{(n_i-j_s+1)} \sum_{(n_s=n_{ik}+j_{ik}-j_i-k_2)}^{(j_s-l+1)} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z \mathcal{S}_{j_{ik}, j_i} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)}$$

$$\sum_{j_{ik} = j_i + j_{sa}^{ik} - s}^{(l_i - l + 1)} \sum_{(j_i = l_i + n - D)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{j_s=j_{ik}+j_{sa}^{ik}+1}^{()}$$

$$\sum_{j_{ik}=j_i+j_s}^{()} \sum_{(j_i=l_i+n-D)}^{()}$$

$$\sum_{n_{is}+k}^{()} \sum_{(n_{is}=n+k-j_s+1)}^{()}$$

$$\sum_{=n_{is}+j_s-k-k_1}^{()} \sum_{(n_s=n_{ik}+j_{ik}-j_i-k_2)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\geq n < n \wedge l_s > D - \dots + 1 \wedge$$

$$D + l_s + s - n - \dots \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

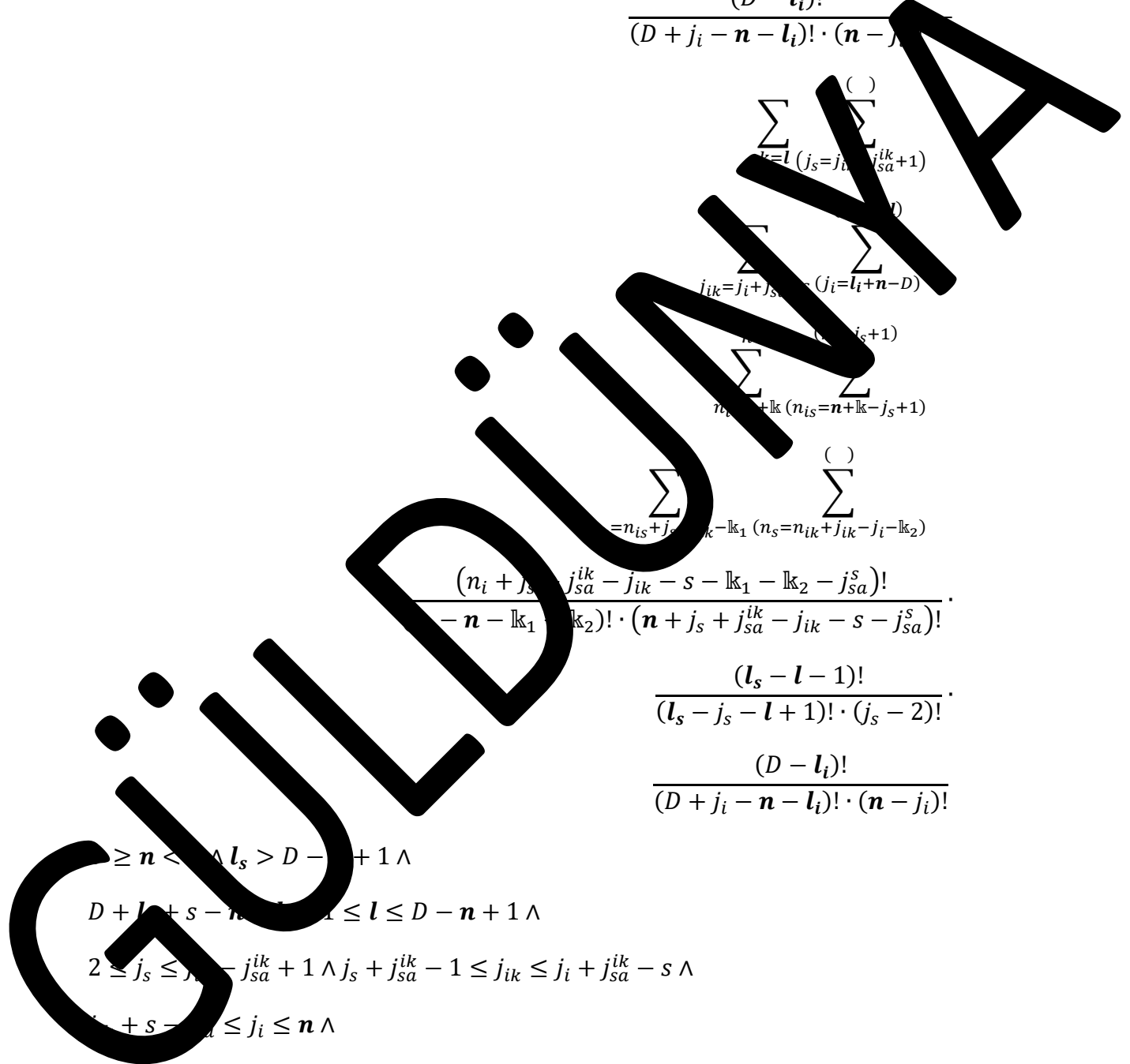
$$\dots + s - \dots \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$



$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\frac{(n_{i_s} + \mathbb{k} - (n_{i_s} + \mathbb{k} - j_s - 1))!}{(j_s - 2)! \cdot (n_{i_s} - n_{i_s} - j_s + 1)!}$$

$$\frac{(n_{i_s} - n_{i_s} - \mathbb{k}_1 - 1)!}{(j_s - 1)! \cdot (n_{i_s} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - \mathbb{k} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{()} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{i_s}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - \dots)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - \dots - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i + j_{sa}^{ik} - 1 \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{ik} - s = l_{ik} \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa}^i - 1 \wedge$

$s \in \{j_{sa}^s, \dots, \mathbb{k}_1, \dots, j_{sa}^{ik}, \dots, \mathbb{k}_2, \dots, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + \mathbb{k}$

$\mathbb{k}_z : z = \dots \wedge \mathbb{k} = \mathbb{k}_1 + \dots \Rightarrow$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_{ik}+s-l-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\frac{\sum_{n_{ik}=n+l_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_2)} (n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - l_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_1)!}$$

$$\frac{(n_{ik} - n_s - l_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - l_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_2)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_1 - l_2 - j_{sa}^s)!}{(n_i - n - l_1 - l_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz \mathcal{S}_{j_{ik}, j_i} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)}$$

$$\sum_{j_{ik} = l_{ik} + n - D}^{l_{ik} - l + 1} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{()}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{j_s=j_{ik}+j_{sa}^{ik}+1}$$

$$\sum_{j_{ik}=l_{ik}+n-j_{ik}+s-j_{sa}^{ik}}$$

$$\sum_{n_i=0}^n \sum_{k=0}^{l_i} (n_{is}=n+k-j_s+1)$$

$$\sum_{n_s=n_{ik}+j_{ik}-j_i-k_2}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-k_2}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

- $D \geq n < l_s > D - 1 \wedge$
- $2 \leq j_{ik} - j_{sa}^{ik} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$
- $j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$
- $j_{sa}^{ik} - 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$
- $D \geq n < n \wedge I = k > 0 \wedge$
- $j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$
- $s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$\begin{aligned}
 f_z S_{j_s, j_{ik}, j_i} &= \sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s = l_s + n - D)}^{(j_{ik} - j_{sa}^{ik} + 1)} \\
 &\sum_{j_{ik} = l_{ik} + n - D}^{j_i + j_{sa}^{ik} - s} \sum_{(j_i = n - D)}^{(l_s + s - l)} \\
 &\sum_{n_{ik} = l_{ik} + \mathbb{k}}^{(n_i - l + 1)} \sum_{(n_{is} = n + \mathbb{k} - j_{ik} - 1)}^{(n_i - l + 1)} \\
 &\sum_{n_{ik} = l_{ik} + \mathbb{k}}^{(n_{is} - j_{ik} - \mathbb{k}_1 - 1)} \sum_{(n_{is} = n + \mathbb{k} - j_{ik} - 1)}^{(n_i - l + 1)} \\
 &\frac{(n_{is} - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \cdot \\
 &\frac{(n_{is} - n_{is} - \mathbb{k}_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 &\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - \mathbb{k} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 &\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 &\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 &\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 &\sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)}^{(l_s - l + 1)}
 \end{aligned}$$

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$$\begin{aligned}
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_1})} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (j_s-n_{is}-j_{ik}-l_{k_1})!} \cdot \\
 & \frac{(n_{ik}-n_{ik}-l_{k_2})!}{(j_i-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_s-j_i-l_{k_2})!} \cdot \\
 & \frac{(n_i-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s-l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \cdot
 \end{aligned}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{(j_i=l_i+n-D)}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\cdot)}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l)!}{(D + j_i - n - l)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_s \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

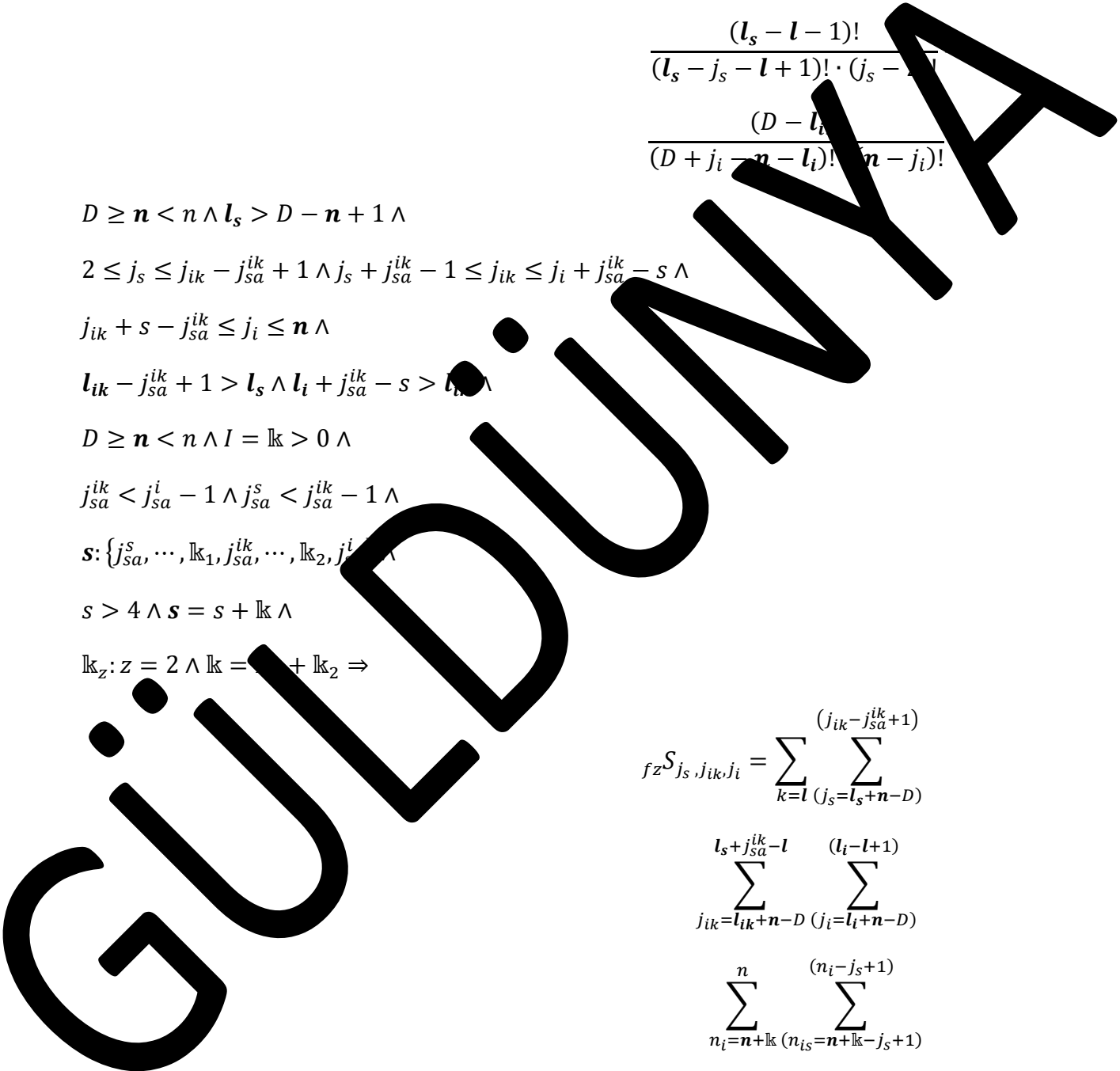
$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\}$

$s > 4 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)} \sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$



$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - j_{sa} - 1)! \cdot (j_{ik} - j_s - j_{sa} + 1)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_{ik} - l_i - s)! \cdot (j_i + j_{sa} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)}^{(l_s - l + 1)} \\
 & \sum_{j_{ik} = l_s + j_{sa}^{ik} - l + 1}^{l_{ik} - l + 1} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{(l_i - l + 1)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}
 \end{aligned}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{l=1}^{l_s} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_s+l} \sum_{j_i=l}^{j_i+l} \sum_{j_{ik}=l_i+n-l}^{j_{ik}+D-s} \sum_{n_i=n+l}^n \sum_{n_s=n+l-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n_i+j_s-j_{ik}-l_{k_1}} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_{k_2}}^{(n_i-j_s+1)} \frac{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D > n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_s - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=l_s+n-1)}^{(l_i+n-D-s)} \sum_{j_{ik}=l_{ik}-l+1}^{l_{ik}-l+1} \sum_{(j_i=n-D)}^{(l_i-l+1)} \sum_{n_i=n+k_1}^n \sum_{(n_i=n+k_2-j_s+1)}^{(n_i)} \sum_{n_{ik}=n_{ik}-j_{ik}}^{n_{ik}-j_{ik}} \sum_{(n_s=n-j_i+1)}^{(n_s=n-j_i+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

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$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n_{ik}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}}^{(n_i+j_{ik}-j_i-k_2)} \\
 & \sum_{n_{ik}=n+k_2-1}^{(n_s-n-j_i)} \\
 & \frac{(n_i-n_{ik}-1)!}{(j_s-2)! \cdot (n_{is}+j_s+1)!} \\
 & \frac{(n_{is}-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-k_1)!} \\
 & \frac{(n_{ik}-n_{ik}-k_2-1)!}{(j_i-j_s-1)! \cdot (n_{is}+j_{ik}-n_s-j_i-k_2)!} \\
 & \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{()} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}
 \end{aligned}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i + j_{sa}^{ik} - 1 \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa}^i - 1 \wedge$$

$$s \in \{j_{sa}^s, \dots, \mathbb{k}_1, \dots, j_{sa}^{ik}, \dots, \mathbb{k}_2, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k}$$

$$\mathbb{k}_z : z = 1 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
& \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 1)!}{(j_s - l_s + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} - j_i - l_{ik} - s)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
& \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{(j_i=l_i+n-D)}^{(\quad)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{(\quad)} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot
\end{aligned}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{()} \sum_{j_{ik} = j_{sa}^{ik} + 1}^{j_i + j_{sa}^{ik} - s} \sum_{(j_i = s + 1)}^{(l_{ik} + s - l - j_{sa}^{ik} + 1)} \sum_{n_i = n + k}^n \sum_{(n_{is} = n + k - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - k_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

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$$\begin{aligned}
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 1)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(l_i - 1)!}{(D + j_i - n - l_i)! \cdot (j_i)!} + \\
& \sum_{j_{sa}^{ik}+1}^{l_{ik}-1} \sum_{j_{sa}^{ik}+1}^{(l_i-l+1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{()} \sum_{j_{ik} = j_i + j_{sa}^{ik} - s}^{(l_{ik} + s - l - j_{sa}^{ik})} \sum_{(j_s + 1)}^{(n_i - l_{ik} + 1)} \sum_{(n + k)}^{(n_i + k - l_{ik} + 1)} \sum_{(j_{ik} = n_{is} + j_{sa}^{ik} - k_1)}^{(j_i - k_2)} \frac{(n_i + j_s + j_{sa}^{ik} - s - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n_i + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq 0 \wedge l_s \leq D - n + 1 \wedge$$

$$j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} - s - j_{sa}^{ik} \leq j_i \leq n - l \wedge$$

$$j_{sa}^{ik} - j_{sa}^{ik} - 1 = l_s \wedge l_i - j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - 1 \wedge$$

$$D - n < l \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j_i+j_{sa}^{ik}-s} \sum_{(j_i=s+l)}^{(l_s+s-l)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{i_1}-1}^{\Delta} \sum_{(n_s=n-j_i+l_2)}^{\Delta} \sum_{(n_{is}+j_s-j_{ik}-l_{k_1}-1)}^{\Delta} \sum_{(n_{ik}-j_i-l_{k_2})}^{\Delta}$$

$$\frac{(n_s - n_{i_1} - 1)!}{(j_s - 2)! \cdot (n_{i_1} - j_s + 1)!}$$

$$\frac{(n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!}$$

$$\frac{(n_{ik} - l_{k_2} - 1)!}{(j_i - j_{i_1} - 1)! \cdot (n_{i_1} + j_{i_2} - n_s - j_i - l_{k_2})!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)}$$

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$$\frac{\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \frac{(n_{ik} - n_s - l_{k_2} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_{k_2})!} \cdot \frac{(n - j_i - n - j_i - l - 1)!}{(n_s - j_i - n - j_i - l - 1)!} \cdot \frac{(n - j_s - l - 1)!}{(n - j_s - l - 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_i - l_{ik} - s)!}{(j_{ik} + l_{ik} - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

$$\sum_{k=l}^{\binom{()}{}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{()}{}}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{\binom{()}{}} \sum_{(j_i=s+1)}^{\binom{()}{}} \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{\binom{()}{}}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)} \sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_{ik} - l + 1} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{(l_i - l + 1)} \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l + 1)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{j_{sa}^{ik}=j_{sa}^{ik}+1}^{(j_i - j_{ik} - 1)} \sum_{j_{ik}=j_{sa}^{ik}+1}^{(j_i - j_{ik} - 1)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_s=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(j_i - j_{ik} - 1)}$$

$$\frac{(l_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$l_i \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{j_s} \sum_{j_{sa}^{ik} = j_{sa}^i - k}^{j_{sa}^i - k} \sum_{j_{sa}^s = j_{sa}^{ik} - k}^{j_{sa}^i - k} \sum_{n_i = n + \mathbb{k}}^{n_i = n + \mathbb{k} - j_s + 1} \sum_{n_{is} = n + \mathbb{k}_1}^{n_{is} = n + \mathbb{k}_1 - j_{ik} + 1} \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1} \sum_{n_s = n - j_i + 1}^{n_s = n - j_i + 1} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

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$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\cdot)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n_{ik}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_k} \sum_{(n_{ik}+j_{ik}-j_i)}^{(\cdot)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{sa}^{ik} - l_k - l_s - j_{sa}^s)!}{(n_i - n - l_k - l_s - j_{sa}^{ik} - j_{sa}^s)! \cdot (n_{ik} + j_{ik} - j_{sa}^{ik} - j_{sa}^s)!} \cdot \frac{(l_k - l - 1)!}{(j_s - l - 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq n - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa}^{ik} + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq j_{sa}^{ik} + j_{sa}^{ik} - s$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_i + j_{sa}^{ik} - s > l_i \wedge$$

$$l_i \leq l_i + s - n \wedge$$

$$D \geq n < n \wedge l = l_k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, l_k, j_{sa}^{ik}, \dots, l_k, j_{sa}^i\} \wedge$$

$$l_k = s + l_k \wedge$$

$$l_k: z = 2 \wedge l_k = l_{k1} + l_{k2} \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{(\cdot)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{(n_{ik}+j_{ik}-j_i-l_{k_1})} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)!(n_{is}-n_{ik}-j_{ik}-l_{k_1})!} \cdot \\
 & \frac{(n_{ik}-n_{ik}-l_{k_2}-1)!}{(j_i-j_{ik}-1)!(n_{ik}-j_{ik}-n_s-j_i-l_{k_2})!} \cdot \\
 & \frac{(n_s-j_i-n-1)! \cdot (n-j_i)!}{(n-1)!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_i+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \cdot \\
 & \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{(\quad)}
 \end{aligned}$$

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$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_i-l+1)} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - 1)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - j_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - s)!}$$

$$\frac{(D - l_i)!}{(n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{-l+1} \sum_{j_s=2}$$

$$\sum_{k=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_s=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_s=j_{ik}-j_{sa}^{ik}+1} \sum_{j_i=j_{sa}^i-1}^{j_i=j_{sa}^i-1} \sum_{j_{ik}=j_i+1}^{j_{ik}=j_i+1} \sum_{j_i=l_i+n-D}^{j_i=l_i+n-D} \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_s+1}^{n_i-j_s+1} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-k_2} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}-l+1} \sum_{(j_i=l_{ik}+l-j_{sa}^{ik}+2)}^{(l_i-l+1)}$$

$$\sum_{n+l_k}^n \sum_{(n_{is}=n+l_k+1)}^{(n_{is}+1)}$$

$$\sum_{n_{ik}+l_{k_2}-j_{ik}}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}$$

$$\frac{(n_{is} - n_{is} - 1)!}{(j_i - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{is} - l_{k_1} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!}$$

$$\frac{(n_{ik} - n_s - l_{k_2} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_{k_2})!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \sum_{(j_i=l_i+n-D)}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_s \wedge$$

$$D + s - n < l_i \leq D + l_{ik} - s - n - j_{sa}^{ik}$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa}^i - 1 \wedge$$

$$s \in \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_i\} \wedge$$

$$s > 1 \wedge s = s + \mathbb{k}$$

$$\mathbb{k}_z: z = \dots \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - k_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa} - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (l_i + j_{sa} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\cdot)} \\
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}
 \end{aligned}$$

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$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{j_s=1}^{(j_i - j_{ik} + 1)} \sum_{j_{sa}^{ik}=j_s}^{(l_s + s - l)} \sum_{n_i=j_i + j_{sa}^{ik} - s}^{(l_s + s - l)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i - j_s + 1)} \sum_{n_{ik}=n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s=n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{(j_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$j_s \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{j_s} \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_i+n+j_{sa}^{ik}-D-1} \sum_{n_{is}=n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{(n_i-n_{is}-1)!} \frac{(n_i-n_{is}-1)!}{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!} \cdot \frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!} \cdot \frac{(n_{ik}-n_s-\mathbb{k}_2-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-\mathbb{k}_2)!} \cdot \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \cdot \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} +$$

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$$\begin{aligned}
 & \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{lk}-D-s}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{lk})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{sa}^{lk}-1}^{\Delta} \sum_{(n_s=n-j_i+j_{sa}^{lk_2})}^{\Delta} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_i - n_{ik} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\
 & \frac{(n_{ik} - n_{ik} - k_2 - 1)!}{(j_i - j_{sa} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{(\quad)} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{lk}-D-s}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{lk})}^{(\quad)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{()}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$

$D + s - n < l_i \leq D + l_{ik} + s - n - j_s \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\}$

$s > 4 \wedge s = s + 1$

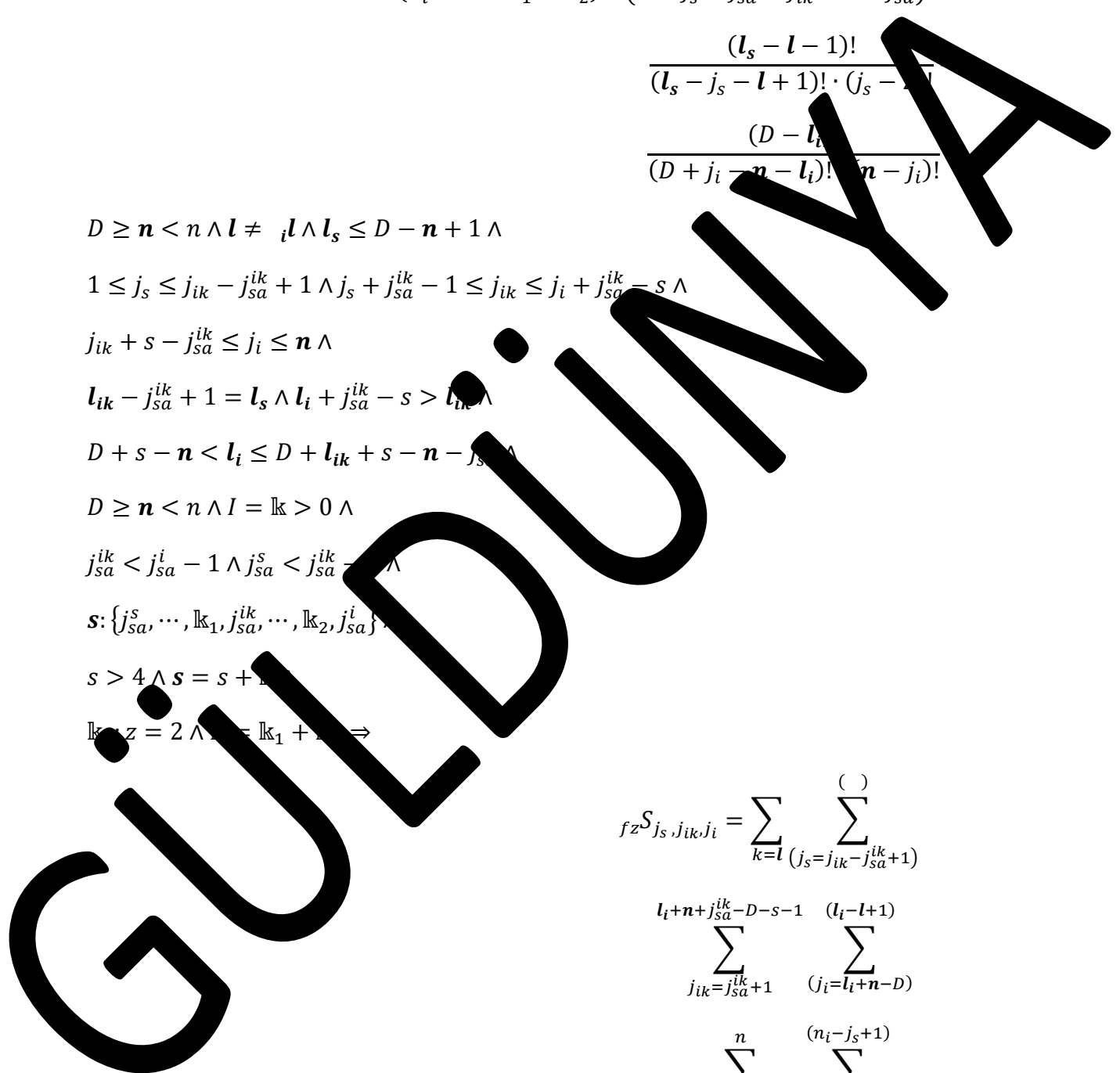
$\mathbb{k}_1 + z = 2 \wedge \mathbb{k}_2 = \mathbb{k}_1 + 1 \Rightarrow$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{\binom{()}{j_s=j_{ik}-j_{sa}^{ik}+1}}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$



$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l - 1)!}{(l_s - l + 1)! \cdot (l - 2)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_i - s)!}{(j_{ik} + l_i - l - s)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
 \end{aligned}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=l}^{()} \sum_{j_s=j_{ik}^{ik}+1}^{()} \sum_{j_s+l}^{l_s+l} \sum_{n+j_{sa}^{ik}-D-j_{ik}+s-j_{sa}^{ik}}^{()} \sum_{n_i}^n \sum_{n_i+k}^{()} (n_{is}=n+k-j_s+1) \sum_{n_{is}+j_{ik}-k-k_1}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-k_2}^{()} \frac{(n_i + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l \leq D - n + 1 \wedge$$

$$1 \leq j_{ik} - j_{sa}^{ik} - 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_s \leq j_i \leq n \wedge$$

$$j_{ik} - 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=2)}^{(l_i+n-D-s)} \sum_{j_{ik}=j_s}^{(l_i-l+1)} \sum_{(j_i=n-D)}^{(l_i-l+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{ik} - k_1 - 1)!}{(j_{ik} + j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_{ik} + j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)}$$

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$$\begin{aligned}
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \frac{(n_{is}-n_{ik}-\mathbb{k}_1-1)!}{(j_{ik}-j_s-1)!(n_{is}-n_{ik}-j_{ik}-\mathbb{k}_1)!} \\
 & \frac{(n_{ik}-\mathbb{k}_2-1)!}{(j_i-j_{ik}-1)!(n_{ik}-j_{ik}-n_s-j_i-\mathbb{k}_2)!} \cdot \frac{(n_i-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_i+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \\
 & \sum_{k=1} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\quad)} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)}
 \end{aligned}$$

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$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik}$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=2)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_i-l+1)} \sum_{(j_i=l_i+n-D)} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_i - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - l_i - s)!} \cdot \\
& \frac{(l_i - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=0}^{\infty} \sum_{i_s=l_i+n-D-s+1}^{\infty} \\
& \sum_{k=j_s+j_{sa}^{ik}-1}^{\infty} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-l_{ik}-l_{k_1}-l_{k_2}}^{(n_i-j_s+1)}$$

$$\sum_{n+l_{k_1}+(n+l_{k_2}-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}-j_{ik}-l_{k_1}-l_{k_2}}^{(n_i-j_s+1)} \sum_{n_{ik}+j_{ik}-j_i-l_{k_2}}$$

$$\frac{(n_i + j_{sa}^{ik} - j_{ik} - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - l_{k_1} - l_{k_2} - j_{sa}^s)! \cdot (n_i + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq 1 \wedge l_s \leq n - 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} + j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + l_s + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = l_{k_1} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, l_{k_1}, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}^i\} \wedge$$

$s > 4 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\)} \sum_{(j_s=j_{ik}-j_{s_a}^{ik}+1)}^{(\)} \sum_{j_{ik}=j_{s_a}^{ik}+1}^{l_{ik}-l+1} \sum_{(j_i+n-D)}^{(l_i-l+1)} \dots \frac{(n_{is}-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!} \dots \frac{(n_{ik}-n_s-\mathbb{k}_2-1)!}{(j_i-\mathbb{k}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-\mathbb{k}_2)!} \dots \frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \dots \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \dots \frac{(l_i+j_{s_a}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{s_a}^{ik}-j_{ik}-s)!} \dots \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \dots \sum_{k=l}^{(\)} \sum_{(j_s=j_{ik}-j_{s_a}^{ik}+1)}^{(\)} \sum_{j_{ik}=l_i+n+j_{s_a}^{ik}-D-s}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{s_a}^{ik})}^{(\)}$$

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$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l_{k_1} - l_{k_2})! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l_{k_1} - l_{k_2} - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$$

$$D + l_s + s - n - l_i + 1 \leq l \leq i - 1$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i \leq j_i + j_{sa}^{ik} -$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = i > 0 \wedge$$

$$j_{sa}^i < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^s - 1 \wedge$$

$$s: \{ \dots, l_{k_1}, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}^i \}$$

$$z > 4 \wedge z = s + l_k \wedge$$

$$l_{k_2}: z = 2 \wedge l_{k_1} = l_{k_2} \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\begin{aligned}
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - j_i - n - l - 1)!}{(n_s - j_i - n - l - 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_s - l_{ik} - s)!}{(j_{ik} + l_{ik} - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{\binom{()}{}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{()}{}} \\
& \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{\binom{()}{}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{\binom{()}{}} \\
& \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot
\end{aligned}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq i \wedge l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2$$

$$f_{zS}^{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}^{(l_i-l+1)} \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{(l_i-l+1)} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)} \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 1)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=1}^{(l_{ik} - l - j_{sa}^{ik} + 2)} \sum_{j_s = j_s + j_{sa}^{ik} - 1}^{(n - j_s + 1)} \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_s = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{()} \frac{(l_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

- $l_i \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$
- $1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$
- $j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$
- $l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s}^{j_{ik} j_i} = \sum_{k=l}^{(j_s - j_{sa}^{ik} + 1)} \sum_{j_{ik}=j_i}^{(l_s + s - l)} \sum_{n_i=n+k}^{(n_i - j_s + 1)} \sum_{n_{is}=n+k-j_s+1}^{(n_i - j_s + 1)} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

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$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_i-l+1)} \sum_{(j_i=l_s+s-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}}^{(n_{ik}+j_{ik}-i-k_2)} \\
 & \sum_{n_{ik}=n+k_2-1}^{(n_s-n-j_i+1)} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\
 & \frac{(n_{ik} - k_2 - 1)!}{(j_i - k_2 - 1)! \cdot (n_{is} + j_{ik} - n_s - j_i - k_2)!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{(j_i=s+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\quad)}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\}$$

$$s > 4 \wedge s = s + 1$$

$$\mathbb{k}_1 + z = 2 \wedge \mathbb{k}_2 = \mathbb{k}_1 + 1 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{\binom{(\quad)}{j_s=2}}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{\binom{(\quad)}{j_i=j_{ik}+s-j_{sa}^{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{(\quad)}{n_{is}=n+\mathbb{k}-j_s+1}}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\quad)}{n_s=n-j_i+1}}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l - 1)!}{(l_s - j_i - l + 1)! \cdot (l - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_s - j_{sa} + 1)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}^{(l_s - l + 1)} \\
 & \sum_{j_{ik}=l_s + j_{sa}^{ik} - l + 1}^{l_{ik} - l + 1} \sum_{(j_i=j_{ik} + s - j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
 \end{aligned}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{j_s=j_{sa}^{ik}+1}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{ik}-l}^{j_{sa}^{ik}-l} \sum_{j_{ik}=j_{sa}^{ik}+1}^{j_{ik}+s-j_{sa}^{ik}}$$

$$\sum_{n_l=0}^n \sum_{k=0}^{l_i-1} (n_{is}=n+k-j_s+1)$$

$$\sum_{n_s=n_{ik}+j_{ik}-j_i-k_2}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-k_2}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < l \neq i \wedge l \leq D - n + 1 \wedge$$

$$1 \leq j_{ik} - j_{sa}^{ik} - 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_s \leq j_i \leq n \wedge$$

$$j_{sa}^{ik} - 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_s+l}^{l_{ik}-l+1} \sum_{(i=j_{ik}-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+k}^{(n_i-j_s)} \sum_{(n=n+k-j_s+1)}^{(n_i-j_s)}$$

$$\sum_{n_{ik}=j_{ik}-k_1}^{(n_i-j_{ik}-k_1)} \sum_{(n_s=n-j_i+1)}^{(n_s=n-j_i+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_s - k_2 - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!}$$

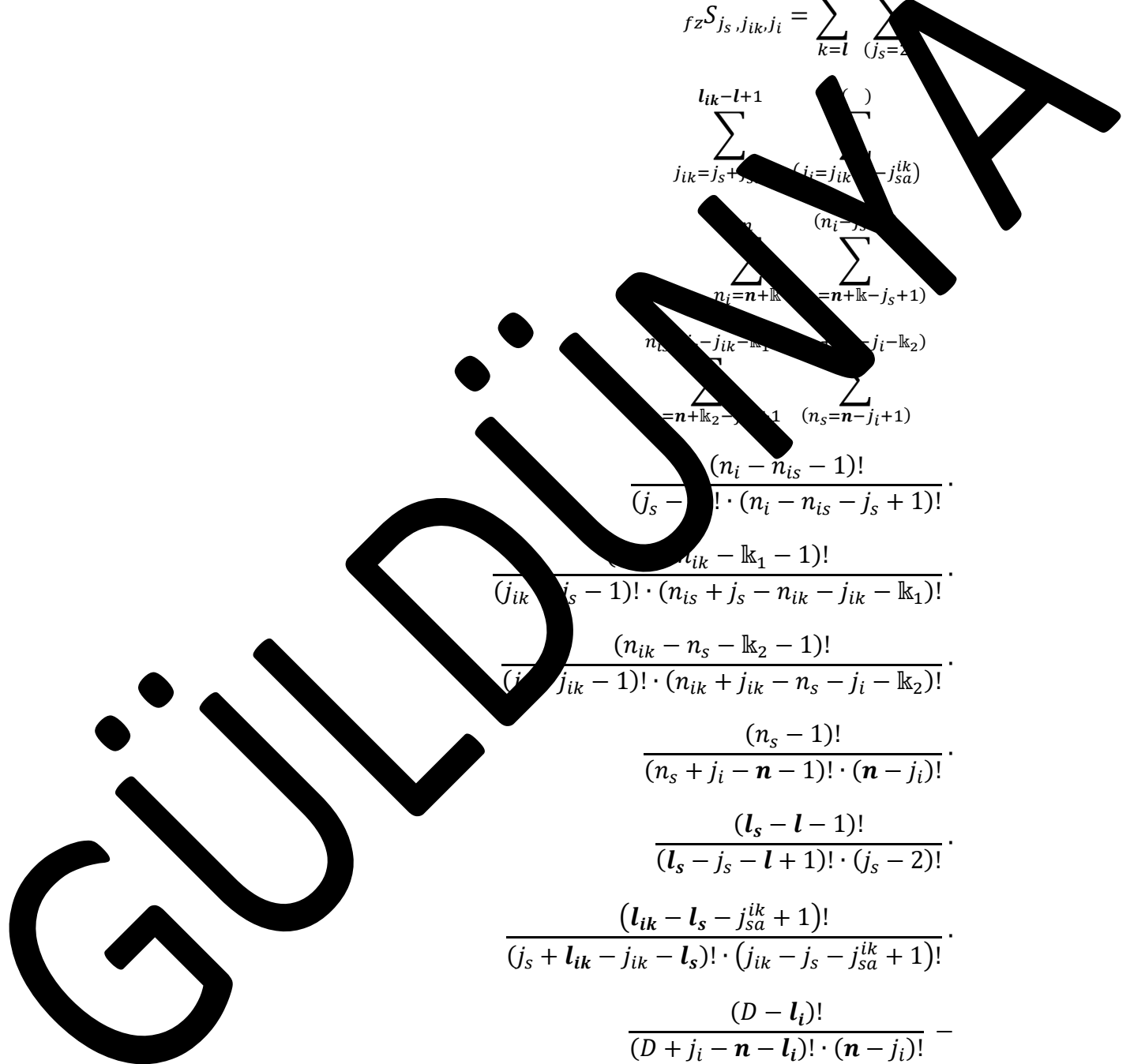
$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$



$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+l_{k_2}-j_i-l_{k_2})}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - j_s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - j_i - l_{k_2} - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l)!}{(D + j_s - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - j_{ik} \leq j_i \wedge j_{sa}^{ik} - s$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - j_{ik} \leq l_{ik} \wedge$$

$$D + j_s - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - j_{ik} - 1$$

$$D \geq n < n \wedge l_{k_1} > 0$$

$$j_{sa}^{ik} - j_{sa}^i - 1 \wedge j_{sa}^s - j_{sa}^{ik} - 1$$

$$\{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, l_{k_2} - j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s$$

$$l_{k_z} \cdot z = z \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)}$$

$$\frac{\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \frac{(n_{ik} - n_s - l_{k_2} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_{k_2})!} \cdot \frac{(n_s - j_i - n - l - 1)!}{(n_s - j_i - n - l - 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(j_{ik} + l_{ik} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_i-l+1)} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

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$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - 1)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - 1)! \cdot (j_{ik} - j_s - l_s + 1)!}$$

$$\frac{(D - l_i)!}{(n - l_i - 1)! \cdot (n - j_i)!}$$

$$\sum_{s=1}^n \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_{ik}-j_{sa}^{ik}+1}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{(j_i=l_i+n-D)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz \mathcal{S}_{j_s, j_{ik}} = \sum_{l=1}^{\mathbb{k}+1} \sum_{(j_s=2)}^{\mathbb{k}+1} \sum_{(j_i=l+n+j_{sa}^{ik}-s)}^{j_{sa}^{ik}} \sum_{(n_i=n+\mathbb{k})}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{(n_{ik}=n+\mathbb{k}_2-j_{ik}+1)}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_s + j_{sa}^{ik} - l + 1}^{l_i + j_{sa}^{ik} - l - s + 1} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{()}$$

$$\sum_{n+l_k}^n \sum_{(n_{is}=n+l_k+1)}^{(n_{is}+1)}$$

$$\sum_{n_{ik} + l_{k_2} - j_{ik}}^{n_{is} + j_s - j_{ik} - l} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{(n_{ik} + j_{ik} - j_i - l_{k_1})}$$

$$\frac{(n_{is} - n - l_{k_1} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n - l_{k_1} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!}$$

$$\frac{(n_{ik} - n_s - l_{k_2} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_{k_2})!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

$$\sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik}=l_i + n + j_{sa}^{ik} - D - s}^{l_s + j_{sa}^{ik} - l} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{()}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{i_s}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_s \wedge$

$D + j_{sa}^{ik} - n < l_{ik} \leq D + j_{sa}^{ik} + j_{sa}^{ik} - n -$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa}^i - 1 \wedge$

$s \in \{s, \dots, \mathbb{k}_1, \dots, \mathbb{k}_2, \dots, i\} \wedge$

$s > 1 \wedge s = s + \mathbb{k}$

$\mathbb{k}_z: z = \dots \wedge \mathbb{k} = \mathbb{k}_1 + \dots \Rightarrow$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{i_s}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
& \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - 1)!}{(j_s - l_s + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(D - l_i)!}{(D + \mathbf{n} - n - l_i)! \cdot (n - j_i)!} + \\
& \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{(l_s-l+1)} \\
& \sum_{j_{ik}=j_s+j_{sa}^{ik}-l-s+1}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
& \sum_{n_i=\mathbf{n}+\mathbb{k}}^{\mathbf{n}} \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}
\end{aligned}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=0}^{(l_s - l + 1)} \sum_{l_i = D - s + 1}^{(l_s - l + 1)}$$

$$\sum_{j_s = j_s + j_{sa}^{ik} - 1}^{(j_s - l)} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{(j_s - l)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{(j_s - l)}$$

$$\frac{(j_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$n - l_i \neq j_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_s - j_{sa}^{ik+1})} \sum_{j_{ik}=j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{n_i=n+\mathbb{k}}^{(n_i-j_s+1)} \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_i-n_{is}-1)!} \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{(j_{ik}-\mathbb{k}_1)} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{lk}-s} \sum_{(j_i=l_s+s-l+1)}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-n+l_{k_2}} \sum_{(n_s=n-j_i+1)}^{n+l_{k_2}-j_{ik}-n+l_{k_2}} \\
 & \frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s - 1)!} \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \\
 & \frac{(n_{ik} - n_{ik} - l_{k_2} - 1)!}{(j_i - j_s - 1)! \cdot (n_{is} + j_{ik} - n_s - j_i - l_{k_2})!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \\
 & \sum_{k=l} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{lk}-s} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_s+s-l)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

GÜLDENWA

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\cdot)}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\}$$

$$s > 4 \wedge s = s + 1$$

$$\mathbb{k}: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{\binom{(\cdot)}{j_s=2}}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{\binom{(\cdot)}{j_i=j_{ik}+s-j_{sa}^{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{(\cdot)}{n_{is}=n+\mathbb{k}-j_s+1}}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\cdot)}{n_s=n-j_i+1}}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l - 1)!}{(l_s - j_{ik} - l + 1)! \cdot (l - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_s)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)} \\
 & \sum_{j_{ik}=l_s + j_{sa}^{ik} - l + 1}^{l_{ik} - l + 1} \sum_{(j_i=j_{ik} + s - j_{sa}^{ik})} \\
 & \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
 \end{aligned}$$

GÜLDÜMBA

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{j_s=j_{ik}+j_{sa}^{ik}+1}$$

$$\sum_{j_{ik}=l_{ik}+n-j_{sa}^{ik}-1}^{j_{ik}-l} \sum_{j_{ik}=j_{ik}+s-j_{sa}^{ik}}$$

$$\sum_{n_i=0}^n \sum_{k=0}^{l_i-1} \sum_{n_{is}=n+k-j_s+1}$$

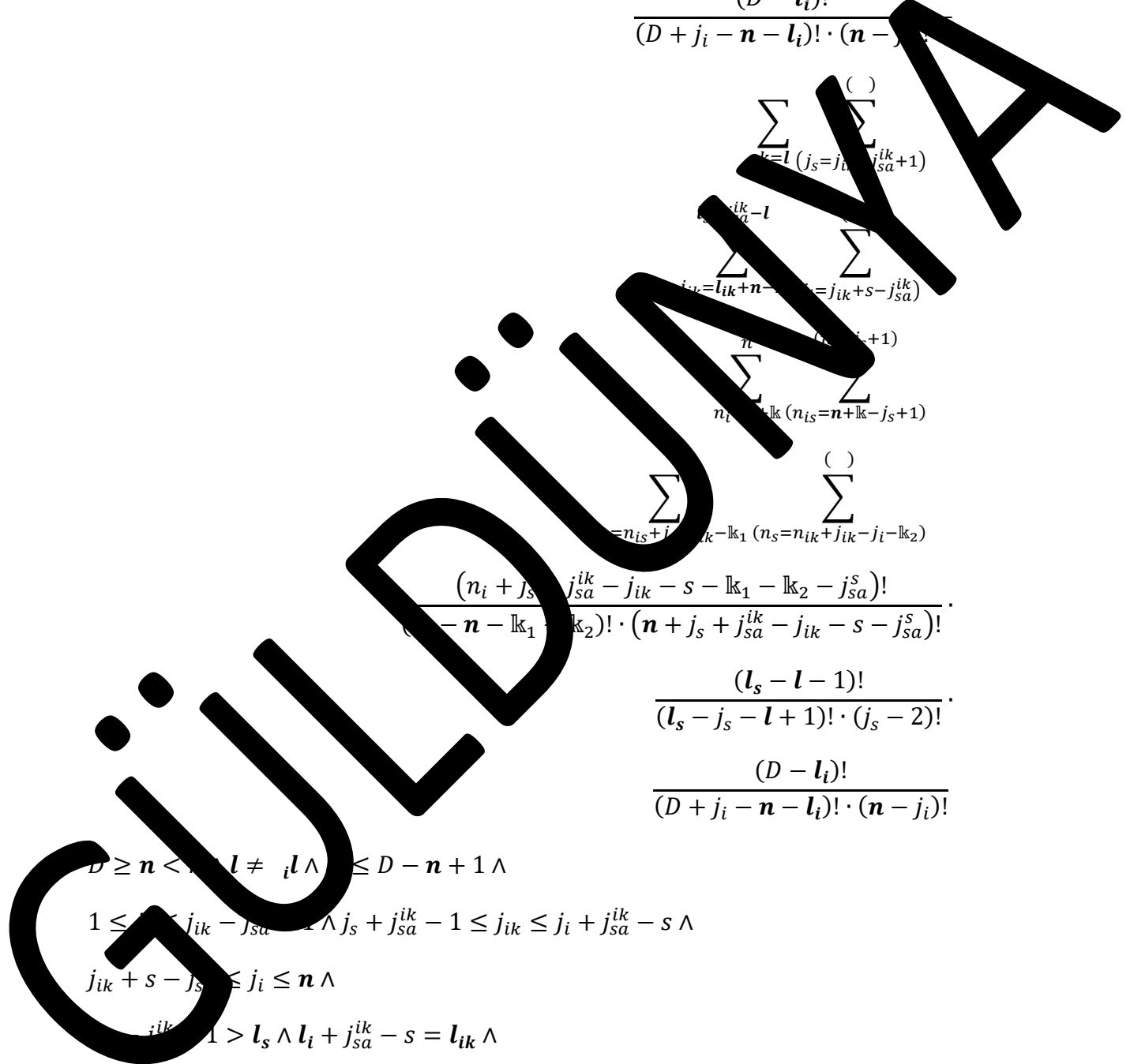
$$\sum_{n_i=j_{sa}^{ik}-j_{ik}-k-k_1}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-k_2}$$

$$\frac{(n_i + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

- $D \geq n < l \neq i \wedge l \leq D - n + 1 \wedge$
- $1 \leq j_{ik} - j_{sa}^{ik} - 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$
- $j_{ik} + s - j_s \leq j_i \leq n \wedge$
- $j_{ik} - 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$
- $D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$
- $D \geq n < n \wedge l = k > 0 \wedge$
- $j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^i - 1 \wedge$



$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{(j_s=2)}^{(n_i-j_s)} \sum_{j_{ik}=l_{ik}}^{(l_{ik}-l+1)} \sum_{(j_i=j_{ik}-j_{sa}^{ik})}^{(n_i-j_s)} \sum_{(n_i=n+\mathbb{k}_1-j_{ik}-\mathbb{k}_2)}^{(n_i-j_s)} \sum_{(n_s=n+\mathbb{k}_2-j_i-1)}^{(n_s=n-j_i+1)} \frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{(n_{ik}+j_{ik}-j_i-l_{k_1})} \\
 & \frac{(n_i-1)}{(j_s-2) \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1) \cdot (n_{is}-n_{ik}-j_{ik}-l_{k_1})!} \cdot \\
 & \frac{(n_{ik}-l_{k_2}-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_s-j_i-l_{k_2})!} \cdot \\
 & \frac{(n_s-j_i-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \cdot \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{()} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{()} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{()}
 \end{aligned}$$

GÜLDÜZMAYA

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq i - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\}$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

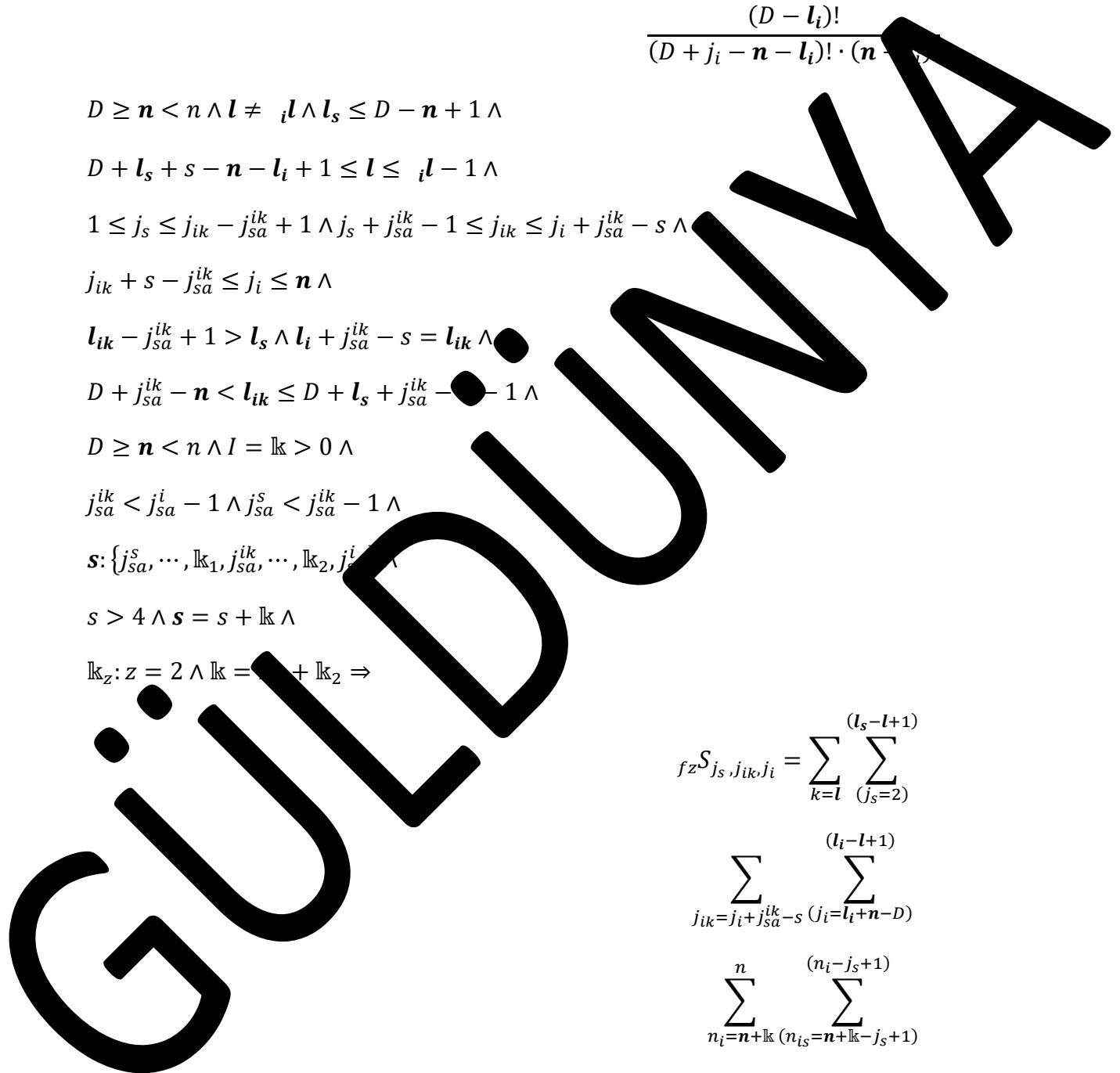
$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_i - l + 1)} \sum_{(j_i=l_i+n-D)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$



$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - 1)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - 1)! \cdot (j_{ik} - j_s - l_s + 1)!}$$

$$\frac{(D - l_i)!}{(n - l_i - 1)! \cdot (n - j_i)!}$$

$$\sum_{s=1}^n \sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{j_{ik}-j_{sa}^{ik}+1}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{l_s+s-l} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq i - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned} & \sum_{j_i=j_{ik}+s-j_{sa}^{ik}}^{n-j_i} \sum_{j_s=j_{sa}^{ik}-1}^{l_s-l} \sum_{j_{ik}=l_{ik}-j_{sa}^{ik}+1}^{n-j_{ik}} \sum_{j_{sa}^i=j_{sa}^{ik}-1}^{n-j_{sa}^i} \\ & \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_s+1}^{(n_i-j_s+1)} \\ & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-k_2)} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\ & \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \\ & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\ & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \end{aligned}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(\)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\)}$$

$$\sum_{n+l_k}^{(n_i+l_k+1)} \sum_{(n_i=n+l_k+1)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - s - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_i + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq 0 \wedge l_s \leq D - n + 1 \wedge$$

$$D - l_s + s - 1 \leq l_i + 1 \wedge l \leq l_i - 1 \wedge$$

$$1 \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$l_i + s - j_{sa}^{ik} \leq j_i \leq n$$

$$l_{ik} - j_{sa}^{ik} + 1 \leq j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D - s - 1 \leq l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^l - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_i+j_{s_a}^{ik}-s} \sum_{(j_i=l_{ik}+n+s-D-j_{s_a}^{ik}+1)}^{(l_{ik}+s-l-j_{s_a}^{ik}+1)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$n_{is}+j_s-j_{ik} = n_{is}+j_{ik}-j_s-k_2$$

$$n_{ik}=n+k_2-j_{ik}+1 \quad (n_s=n-j_i+1)$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s - j_{ik} - k_1)!}$$

$$\frac{(n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{is} - k_2 - 1)!}{(j_i - j_s - 1)! \cdot (n_{is} + j_{ik} - n_s - j_i - k_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{s_a}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{s_a}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{s_a}^{ik}+1)}$$

$$\sum_{j_{ik}=j_s+j_{s_a}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{s_a}^{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{\binom{(\cdot)}{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq i \wedge l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i \leq j_i + j_{sa}^{ik} - 1 \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s \leq 4 \wedge s = \mathbb{k}_1 + \mathbb{k}_2 \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{\binom{(\cdot)}{j_i=j_{ik}+s-j_{sa}^{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\frac{\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} (n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - k_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-k_2)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$(D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l \neq i \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n) \vee$$

$$(D \geq n < n \wedge l \neq i \wedge l_s \leq D - n - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$l_i \leq D + s - n)) \wedge$$

$$D \geq n < n \wedge l = i \wedge l_s > 0 \wedge$$

$$j_{ik} < j_{sa}^{ik} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^{ik}\}$$

$$s > 4, \mathbb{k}_1 = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k}_2 = \mathbb{k}_1 + 1 \Rightarrow$$

$$f_z^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j_i+j_{sa}^{ik}-s} \sum_{(j_i=s+1)}^{(l_s+s-l)}$$

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_s - l_{k_2} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_{k_2})!} \cdot \\
 & \frac{(n_s - j_i - n - l - 1)!}{(n_s - j_i - n - l - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(j_{ik} + l_{ik} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} - l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +
 \end{aligned}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}-l+1} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}$$

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$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa} - l_{ik} - s)!}{(j_{ik} + l_i - l_{ik} - s)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{()}$$

$$\sum_{j_{ik} = j_i + j_{sa}^{ik} - s}^{(l_s + s - l)} \sum_{(j_i = s + 1)}^{()}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\left((D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge \right.$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$l_i \leq D + s - n)) \wedge$$

$$D \geq n < n \wedge l = l > 0 \wedge$$

$$j_{ik} < j_{sa}^{ik} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^{ik}\}$$

$$s > 4, \mathbb{k}_1 = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k}_2 = \mathbb{k}_1 + 1 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n+l_{k_2}-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{i_k}+j_{i_k}-j_i-l_{k_2})} \\
 & \frac{(n_i - n_{i_s} - 1)!}{(j_s - 2)! \cdot (n_i - n_{i_s} - j_s + 1)!} \cdot \\
 & \frac{(n_{i_s} - n_{i_k} - l_{k_1} - 1)!}{(j_{i_k} - j_s - 1)! \cdot (n_{i_s} + j_s - j_{i_k} - l_{k_1})!} \cdot \\
 & \frac{(n_{i_k} - n_s - l_{k_2} - 1)!}{(j_i - j_{i_k} - 1)! \cdot (n_{i_k} + j_{i_k} - n_s - j_i - l_{k_2})!} \cdot \\
 & \frac{(n_s - j_i - n_{i_s} - l - 1)!}{(n_s - j_i - n_{i_s} - l - j_i)!} \cdot \\
 & \frac{(n_{i_s} - j_s - l - 1)!}{(n_{i_s} - j_s - l - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{i_k} - j_{i_s}^{i_k} + 1)!}{(j_{i_k} + l_{i_k} - j_{i_s}^{i_k})! \cdot (j_{i_k} - j_s - j_{i_s}^{i_k} + 1)!} \cdot \\
 & \frac{(l_i + j_{i_s}^{i_k} - l_{i_k} - s)!}{(j_{i_k} + l_i - j_i - l_{i_k})! \cdot (j_i + j_{i_s}^{i_k} - j_{i_k} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \\
 & \sum_{j_{i_k}=l_s+j_{i_s}^{i_k}-l+1}^{l_{i_k}-l+1} \sum_{(j_i=j_{i_k}+s-j_{i_s}^{i_k})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{i_s}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{i_k}=n+l_{k_2}-j_{i_k}+1}^{n_{i_s}+j_s-j_{i_k}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{i_k}+j_{i_k}-j_i-l_{k_2})}
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa}^{ik} - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_s - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{(\quad)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\quad)} \\
 & \sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_s + j_{sa}^{ik} - l} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{(\quad)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{(\quad)} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$(D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l \neq i \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n) \vee$$

$$(D \geq n < n \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$l_i \leq D + s - n)) \wedge$$

$$D \geq n < n \wedge l \neq i > 0 \wedge$$

$$j_s^{ik} < j_{sa}^{ik} - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, l_{k_1}, j_{sa}^{l_{k_1}}, \dots, l_{k_2}, j_{sa}^{l_{k_2}}, \dots\}$$

$$s > 4 \wedge s = s + l_{k_1} \wedge$$

$$l_{k_z}: z = 2 \wedge l_{k_z} = l_{k_1} + l_{k_2} \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\frac{\sum_{n_{ik}=n+l_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_2)} (n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - l_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_1)!}$$

$$\frac{(n_{ik} - n_s - l_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - l_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - 1)!}{(j_s - l_s + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+l}^n \sum_{(n_{is}=n+l-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_2)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_1 - l_2 - j_{sa}^s)!}{(n_i - n - l_1 - l_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$(D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k, j_{sa}^{ik}, \dots, k, j_{sa}^i\} \wedge$$

$$s \geq 4 \wedge s = s - k \wedge$$

$$k_z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{j_i + j_{sa}^{ik} - s} \sum_{(j_i=l_i+n-D)}^{(l_s + s - l)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i - j_s + 1)}$$

$$\frac{\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} (n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - k_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - 1)!}{(j_s - l_s + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - l_s)! \cdot (j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} - j_i - l_{ik} - s)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\frac{\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} (n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

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$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - 1)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - 1)! \cdot (j_{ik} - j_s - 1)!}$$

$$\frac{(l_s + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_{ik} - l_i - s)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(\)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{(j_i=l_i+n-D)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$((D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq i l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
& \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - 1)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{sa}^{ik} - s)!} \cdot \\
& \frac{(D - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
& \sum_{k=l}^{-l+1} \sum_{(j_s=2)}^{-l+1} \\
& \sum_{k=l_s+j_{sa}^{ik}-l+1}^{-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
\end{aligned}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{j_s=j_{ik}-j_{sa}^{ik}+1}^{()}$$

$$\sum_{j_{sa}^{ik}-D-s}^{l_s+j_s-1} \sum_{j_{ik}+s-j_{sa}^{ik}}^{()}$$

$$\sum_{n_i=n_{ik}-j_s+1}^n \sum_{n_s=n_{ik}-j_s+1}^{()}$$

$$\sum_{n_s=n_{ik}+j_{ik}-j_i-k_2}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$((D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_i \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^l - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^l\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned} & \sum_{k=1}^{l_i} \sum_{j_s=2}^{(l_i+n-D)} \\ & \sum_{j_{ik}=l_{ik}+1}^{k-l+1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)} \\ & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\ & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\ & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\ & \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \\ & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\ & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \end{aligned}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_i + n - D - s + 1)}$$

$$\sum_{j_{ik} = j_s + j_{sa}^{ik} - l_{ik} - l + 1}^{l_{ik} - l + 1} \sum_{(j_{ik} + j_{sa}^{ik})}^{(l + 1)}$$

$$\sum_{n + k}^{(n - j_s + 1)} \sum_{(n + k - j_s + 1)}$$

$$\sum_{n_{is} + j_{ik} - k_1}^{(n_{is} + j_{ik} - k_1)} \sum_{(n_{is} + j_{ik} - k_2)}^{(n_{is} + j_{ik} - k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_s - k_2 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

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$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{()} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-1}^{()} \sum_{(n_{is}=n_{ik}+j_{ik}-j_{sa}^{is})}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{sa}^{is} - l_k - l_s - j_{sa}^s)!}{(n_i - n - l_1 - l_2)! \cdot (n_i + j_s + j_{sa}^{ik} - j_{sa}^{is} - j_s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$((D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq l_i - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_{ik} - j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n - l_i \leq D + l_s + s - n - 1) \vee$$

$$(D \geq n < n \wedge l \neq l \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq l_i - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_i - s + 1 > l_s \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s-l+1)} \sum_{j_s=2} \sum_{j_{ik}=l_{ik}+1}^{(j_{ik}-l+1)} \sum_{j_i=l_i+n-D}^{(j_i+l_i+n-D)} \sum_{n_{is}=n+\mathbb{k}-j_s+1}^{(n_{is}+j_s-1)} \sum_{n_{ik}=n_2-j_{ik}+1}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \sum_{n_{ik}=n_2-j_{ik}+1}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{()} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-1}^{()} \sum_{(n_{is}=n_{ik}+j_{ik}-j_{sa}^{ik})}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - l_k - l_s - j_{sa}^s)!}{(n_i - n - l_1 - l_2)! \cdot (n_i + j_s + j_{sa}^{ik} - l_k - l_s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l = l \wedge l_s \geq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_s + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + j_{sa}^{ik} \leq j_i \leq l_i$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_i + j_s - s > l_i \wedge$$

$$l_i \leq l_i + s - n \wedge$$

$$n \geq n < n \wedge I = l_k > 0$$

$$j_{sa}^{ik} < j_i - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}^i\} \wedge$$

$$l_i \geq 4 \wedge l_i \geq s + l_k \wedge$$

$$l_{k_z}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$f_z^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{()} \sum_{(j_s=1)}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{lk}} \sum_{(j_i=s)}^{(l_i - l + 1)} \sum_{n_i=n+lk}^n \sum_{(n_{ik}=n+lk_2-j_{ik}+1)}^{(n_i-j_{ik}-lk_1+1)} \sum_{n_s=n-j_i}^{n_{ik}+j_{ik}-j_i-lk_2} \frac{(n_i - n_{ik} - lk_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - lk_1 + 1)!} \cdot \frac{(n_{ik} - n_s - lk_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - j_i - lk_2)!} \cdot \frac{(n_i + j_i - n - 1)! \cdot (n - j_i)!}{(l_i + j_{sa} - l - s)!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=1)}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{lk}} \sum_{(j_i=s)}^{()}$$

$$\sum_{n_i=n+lk}^n \sum_{(n_{ik}=n_i-j_{ik}-lk_1+1)}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-lk_2}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - lk_1 - lk_2 - j_{sa}^s)!}{(n_i - n - lk_1 - lk_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$D \geq n < n \wedge l = j_l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^s j_{sa}^{ik} = \sum_{k=i}^n \sum_{j_i=1}^{(j_i)} \dots$$

$$\sum_{j_{ik} + j_{sa}^{ik} - s} \sum_{(j_i=s)}^{i+1}$$

$$\sum_{n_i}^n \sum_{(n_i - k - k_1 + 1)}^{(n_i - k - k_1 + 1)} \sum_{(n_s = n - j_i + 1)}^{n_{ik} + j_{ik} - j_i - k_2}$$

$$\frac{(n_i - n_{ik} - k_1 - 1)!}{(i - 2)! \cdot (n_i - n_{ik} - j_{ik} - k_1 + 1)!}$$

$$\frac{(n_{ik} - n_s - k_2 - 1)!}{(i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=i}^n \sum_{j_i=1}^{(j_i)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j_i=s)}^{(j_i)}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{(\)}{n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1}} \sum_{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - \dots)!}$$

$D \geq n < n \wedge l = i \wedge l_s \leq D - n + 1 \wedge$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$

$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$

$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\}$

$s > 4 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=i} \sum_{\binom{(\)}{j_s=1}}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}-i^{l+1}} \sum_{\binom{(\)}{j_i=j_{ik}+s-j_{sa}^{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{(\)}{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}} \sum_{n_s=n-j_i+1}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{(j_s)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{(j_i)}$$

$$\sum_{n_i=n+l_k}^n \sum_{n_j=j_i-j_{ik}-l_{k_1}}^{(j_i)}$$

$$\frac{(n_i + j_{sa}^{ik} - j_{ik} - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n - n - l_{k_1} - l_{k_2})! \cdot (n + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

$$((D \geq n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n) \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n) \vee$$

$$(D \geq n < n \wedge l = l_i \wedge l_i \leq D + s - n \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n) \vee$$

$$(D \geq n < n \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n)$$

$$l_i - s + 1 > l_s \wedge$$

$$l_i \leq D + s - n) \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{S_{j_s, \dots, j_i}} = \sum_{k=i}^{\binom{D}{l}} \sum_{(j_s=1)}^{\binom{D}{l+1}}$$

$$j_{ik}^{l_{ik}-l} \cdot \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{\binom{D}{l+1}}$$

$$j_{ik}^{j_{ik}^{ik}} \cdot \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{\binom{D}{l+1}}$$

$$\sum_{n_i=n_{ik}+\mathbb{k}}^n \sum_{(n_i=n_{ik}+\mathbb{k}-\mathbb{k}_1+1)}^{(n_i=n_{ik}+\mathbb{k}-\mathbb{k}_1+1)} \sum_{(n_s=n-j_i+1)}^{(n_s=n-j_i+1)}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(n_i - n_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=i}^{\binom{D}{l}} \sum_{(j_s=1)}^{\binom{D}{l+1}}$$

$$\sum_{k=i}^{\binom{D}{l}} \sum_{(j_s=1)}^{\binom{D}{l+1}}$$

$$\sum_{j_{ik}=j_{sa}^{ik}} \sum_{(j_i=s)}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1)}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(D - l_i)}{(D + s - n - \mathbb{k}_1 - \mathbb{k}_2)! (n - s)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik}$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^{ik}\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2: z \geq 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_{ik}+s-l-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_s=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l - 1)!}{(l_s - l + 1)! \cdot (l - 2)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_i - s)!}{(j_{ik} + l_i - l - 1)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=l}^{()} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{()} \\
 & \sum_{j_{ik} = l_{ik} + n - D}^{l_{ik} - l + 1} \sum_{(j_i = l_{ik} + s - l - j_{sa}^{ik} + 2)}^{(l_i - l + 1)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot
 \end{aligned}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{j_s=j_{ik}+l_{ik}}^{()} (j_s - l_{ik})$$

$$(l_{ik} + s - j_{ik} + 1)$$

$$\sum_{j_i=j_{sa}^{lk}-s}^{()} \sum_{j_i=l_i+n-D}^{()} (j_i - l_i + 1)$$

$$\sum_{n_i=n+l_k}^{()} (n_i - n + l_k - j_s + 1)$$

$$\sum_{n_i=n+l_k}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_{k_2}}^{()} (n_s - n_{ik} + j_{ik} - j_i - l_{k_2})$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\geq n < l_s > D - l_i + 1 \wedge$$

$$2 \leq j_{ik} \leq j_{ik} - j_{sa}^{ik} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$j_{sa}^{ik} - j_{sa}^{ik} = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = l_k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, l_{k_1}, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + l_k \wedge$$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)}$$

$$\sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-1}^{j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)}$$

$$\sum_{n_i=n+1}^n \sum_{(n_i+j_s+1)}^{(n+j_s+1)}$$

$$\sum_{i_{ik}+1}^{n_i+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is})}{(j_s - 2) \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} + j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_{ik} + j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(\quad)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\quad)}$$

$$\sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)}$$

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$$\frac{\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \frac{(n_{ik} - n_s - l_{k_2} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_{k_2})!} \cdot \frac{(n - j_i - n_s - l - 1)!}{(n_s - j_i - n - l - 1)!} \cdot \frac{(n - j_s - l - 1)!}{(n - j_s - 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_s - l_{ik} - s)!}{(j_{ik} + l_{k_1} - j_i - l_{k_1})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

$$\sum_{k=l}^{\binom{)}{}} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{\binom{)}{}}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{\binom{)}{}} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{\binom{)}{}}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

GÜLDÜZYAZ

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{zS} j_i = \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot$$

$$\begin{aligned}
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=0}^{l-1} \sum_{j_s=j_{ik}+l_s-k}^{n-j_i-l_s-k} \sum_{j_{ik}=l_i+l-k}^{l_i+l-1} \sum_{j_i=j_{ik}-s-j_{sa}^{ik}}^{(l_i-l+1)} \\
 & \sum_{n_i=n+k}^{(n_i-j_s+1)} \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot
 \end{aligned}$$

GÜLDÜNYA

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j^{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-1} \sum_{(j_s=n_{ik}+j_{ik}-j_i)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - \dots - \mathbb{k}_1 - \dots - j_{sa}^s)!}{(n_i - n - \dots - \mathbb{k}_1 - \dots)! \cdot (n_{is} + j_{sa}^{ik} - \dots - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - \dots + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n - 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq \dots + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + \dots - j_{sa}^{ik} \leq j_i \leq \dots \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = \dots \wedge l_i + j_{sa}^{ik} - s > l_s \wedge$$

$$D \geq \dots < n \wedge I = \mathbb{k}_1 = 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^s - 1 \wedge j_{sa}^s < j_{sa}^s - 1 \wedge$$

$$s: \{j_s^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, j_{sa}^s\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz_{j_s, j_{ik}, j_i} = \sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-s-1}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_1})} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_i-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-l_{k_1})!} \cdot \\
 & \frac{(n_{ik}-l_{k_2}-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-l_{k_2})!} \cdot \\
 & \frac{(n_s-j_i-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_i+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=l}^{\binom{)}{}} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{\binom{)}{}} \\
 & \sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_i - s)!}{(j_{ik} + l_i - l - s)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{(\cdot)} \\
 & \sum_{j_{ik} = l_i + n + j_{sa}^{ik} - D - s}^{l_s + j_{sa}^{ik} - l} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{(\cdot)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{(\cdot)} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s}^{(l_i+n-D-s)} \sum_{k=0}^{j_{sa}^{ik}-1} \sum_{l=0}^{(l_i-l+1)} \sum_{j_{ik}=j_s+l_{ik}-l_s}^{(j_i=l_i+n-D)} \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{(l_i-l+1)} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}$$

$$\sum_{n+l_k}^{(n_i+l+1)} \sum_{(n_{is}=n+l_k+1)}$$

$$\sum_{n_{ik}+l_{k_2}-j_{ik}}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \sum_{(j_i+1)}$$

$$\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_i - 1)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_i - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!}$$

$$\frac{(n_{ik} - n_s - l_{k_2} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_{k_2})!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_i+n-D-s+1)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{()} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_1)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s \cdot 4 \wedge s = \mathbb{k}_1 + \mathbb{k}_2 \wedge$$

$$\mathbb{k}_z: \mathbb{k}_z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\begin{aligned}
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - k_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - 1)!}{(j_s - l_s + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa} - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (l_i + j_{sa} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + l_i - n - l_i)! \cdot (n - j_i)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_s+l_{ik}-l_s}^{(l_i-l+1)} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}
 \end{aligned}$$

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$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=0}^{(l_s - l + 1)} \sum_{l_i = D - s + 1}^{l_i} \sum_{j_s = j_s + l_{ik} - l_s}^{(j_i = j_{ik} + s - j_{sa}^{ik})} \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{()}$$

$$\frac{(j_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$j_i \geq n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{j_i} \sum_{j_{ik}=l_{ik}}^{(l_i-l+1)} \sum_{n_i=n+k}^{(n_i-j_s+1)} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{(n_{ik}+j_{ik}-j_i-k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

GÜLDÜNYA

$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\cdot)} \sum_{j_{ik}=j_i+j_{sa}^{lk}-s}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \sum_{(j_i=l_i+n-D)}^{(\cdot)} \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{ik}}^{(\cdot)} \sum_{(n_{ik}+j_{ik}-j_i)}^{(\cdot)} \frac{(n_i + j_s + j_{sa}^{ik} - j_{sa}^{lk} - l_{ik} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2} - l_{k_3} - j_{sa}^s)!} \cdot \frac{(l_{k_1} - l_{k_2} - l_{k_3} - l - 1)!}{(n_i - j_s - l_{k_1} - l_{k_2} - l_{k_3} + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n \wedge I = \mathbb{k} > 0$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge I = \mathbb{k} > 0$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{lk} - 1 \leq j_i \leq j_i + j_{sa}^{ik} - s \wedge I = \mathbb{k} > 0$$

$$j_{ik} + s - j_{sa}^{lk} \leq n \wedge I = \mathbb{k} > 0$$

$$l_{ik} - j_{sa}^{lk} + 1 = l_s \wedge j_{sa}^{lk} - l_{ik} > l_{ik} \wedge I = \mathbb{k} > 0$$

$$D \geq n < n \wedge I = \mathbb{k} > 0$$

$$j_{sa}^{lk} < j_i - 1 \wedge j_{sa}^{lk} < j_{sa}^{ik} - 1 \wedge I = \mathbb{k} > 0$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge I = \mathbb{k} > 0$$

$$l \geq 4 \wedge l = s + \mathbb{k} \wedge I = \mathbb{k} > 0$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow I = \mathbb{k} > 0$$

$$f_z S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\cdot)}$$

$$\sum_{j_{ik}=l_s+n+j_{sa}^{ik}-D-1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-1)}^{(n_{ik}+j_{ik}-j_i-k_1)}$$

$$\frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}-1)!}$$

$$\frac{(n_i-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_i-n_{ik}-j_{ik}-k_1)!}$$

$$\frac{(n_{ik}-k_2-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-k_2)!}$$

$$\frac{(n_s-j_i-n-1)! \cdot (n-j_i)!}{(n_s-1)!}$$

$$\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!}$$

$$\frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_i+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!}$$

$$\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{(j_i=l_i+n-D)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1}^{()} \sum_{(n_s=n_{ik}+j_{ik}-j_i-k_2)}^{()}$$

GÜLDÜZÜMÜ

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_{ik}-l-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{(l_i-l+1)} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - 1)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - j_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik} - s)! \cdot (j_i + j_{sa}^{ik} - s)!} \cdot \frac{(D - l_i)!}{(n - l_i - 1)! \cdot (n - j_i)!} \cdot \sum_{k=0}^{j_s} \sum_{i_s=l_i+n-D-s+1}^{(i_s+2)} \sum_{i_k=j_s+l_{ik}-l_s} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})} \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{()} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, j_i, j_i} = \sum_{k=l}^{(j_{sa}^{ik}+1)} \sum_{(j_s=l_s)}^{(l_s+l)} \sum_{(j_{ik}=j_i+l)}^{(l_s+l)} \sum_{(n_i=n+l)}^{(n_i-j_s+1)} \sum_{(n_{is}=n+l-k)}^{(n_{is}=n+l-k-j_s+1)} \sum_{(n_{ik}=n+k_2-j_{ik}+1)}^{(j_{ik}-k_1)} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\begin{aligned}
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_i-l+1)} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{is}+j_s-j_{ik}}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
 & \sum_{n_{ik}=n+k_2}^{(n_{is}-n-k_1+1)} \sum_{(n_s=n-j_i)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\
 & \frac{(n_{ik} - n_{is} - k_2 - 1)!}{(j_i - n_{is} - 1)! \cdot (n_{is} + j_{ik} - n_s - j_i - k_2)!} \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$$\begin{aligned}
 & \sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=l_i+n-D)}^{(l_s+s-l)} \\
 & \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

GÜLDENREYNA

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \frac{(D - l)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_2: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+l_i-l_{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\begin{aligned}
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s - 1)! \cdot (j_{ik} - j_s - l_s + 1)!} \cdot \\
 & \frac{(n - l_i)!}{(n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{n-l_i+1} \sum_{(j_s=l_s+n-D)}^{n-l_i+1} \\
 & \sum_{i=l_s+j_{sd}-l+1}^{l_i+l_{ik}-l-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(n)} \\
 & \sum_{n_i=n+l_{ik}}^n \sum_{(n_{is}=n+l_{ik}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

GÜLDENWA

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_i+n_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_{ik}-j_s-j_{sa}^{ik}+1)}$$

$$\sum_{(n_i-j_s+1)} \sum_{(n_i+l_{ik}+l_k-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}} \sum_{(j_{ik}-l_{k_1})} \sum_{(n_{ik}+j_{ik}-j_i-l_{k_2})}$$

$$\frac{(n_i + j_s - j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - l_{k_1} - l_{k_2} - j_{sa}^s)! \cdot (n_i + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > 2 - n + 1 \wedge$$

$$2 \leq j_s - j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = l_k > 0 \wedge$$

$$j_{sa}^{ik} - j_{sa}^s - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, l_{k_1}, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + l_k \wedge$$

$$l_{k_z}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$fzS_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-l-s+1}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+l_i-l)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+k_2)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} + j_s + 1)!}$$

$$\frac{(n_{ik} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{ik} - k_2 - 1)!}{(j_i - j_s - 1)! \cdot (n_{is} + j_{ik} - n_s - j_i - k_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}$$

$$\sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

GÜLDENWA

$$\begin{aligned}
 & \sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + \mathbf{n} - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=1}^{(l_s-l+1)} \sum_{(j_s=l_i+\mathbf{n}-D-s+1)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{()} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1}^{()} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{()} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot
 \end{aligned}$$

GÜLDÜNKYA

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z^{j_{ik}, j_i} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}^{(j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_s+s-l)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

GÜLDÜNKYA

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot$$

$$\sum_{k=l}^{l_s-l+1} \sum_{j_s=n-D}^{j_s+1} \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\sum_{j_i=j_i+l_{ik}-l_i}^{j_i+l_{ik}-l_i+1} \sum_{j_s=l_s+1}^{j_s+1} \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\sum_{n_{ik}=n_{ik}+k}^{n_{ik}+k} \sum_{n_{is}=n+l_k-j_s+1}^{n_{is}=n+l_k-j_s+1} \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\sum_{n_{ik}=n_{ik}-j_{ik}-k_1}^{n_{ik}-j_{ik}-k_1} \sum_{n_{is}=n+l_k-j_s+1}^{n_{is}=n+l_k-j_s+1} \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\sum_{n_{ik}=n_{ik}-j_{ik}+1}^{n_{ik}-j_{ik}+1} \sum_{n_{is}=n-j_i+1}^{n_{is}=n-j_i+1} \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot$$

$$\frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot$$

GÜLDÜMNYA

$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=l_{ik}+n+s-D-j_{ik}^l)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n-l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{ik}} \sum_{(n_{ik}+j_{ik}-j_i=l_{ik})}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_{is} + j_{sa}^{ik} - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(n_i - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n - l_i \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + j_{sa}^{ik} \leq j_i \leq j_{ik} + j_{sa}^{ik} - 1 \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_i \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = l_{k_1} + l_{k_2} \wedge$$

$$j_{sa}^{ik} < j_{sa}^{il} - 1 \wedge j_{sa}^s < j_{sa}^{il} - 1 \wedge$$

$$s: \{j_{sa}^{ik}, l_{k_1}, j_{sa}^{il}, l_{k_2}, j_{sa}^{il}\} \wedge$$

$$s > 4 \wedge s = l_{k_1} + l_{k_2} \wedge$$

$$l_{k_2} = l_{k_1} \wedge l_{k_2} = l_{k_1} + l_{k_2} \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=l_s+n-D)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \binom{(\quad)}{j_i=j_{ik}+l_i-l_{ik}} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
 & \frac{(n_i-1)!}{(j_s-2)!(n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)!(j_s-n_{is}-j_{ik}-l_{k_1})!} \cdot \\
 & \frac{(n_{ik}-n_{ik}-l_{k_2}-1)!}{(j_i-j_{ik}-1)!(n_{ik}+j_{ik}-n_s-j_i-l_{k_2})!} \cdot \\
 & \frac{(n_s-j_i-n-1)! \cdot (n-j_i)!}{(n-1)!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)} \\
 & \sum_{j_{ik}=l_s+j_{sa}^{ik}-l+1}^{l_{ik}-l+1} \binom{(\quad)}{j_i=j_{ik}+l_i-l_{ik}} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}
 \end{aligned}$$

GÜLDÜZMAYA

$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{jk} - l_s - j_{sa} + 1)!}{(j_s + l_{ik} - j_{sa} - l_{ik} - 1)! \cdot (j_{ik} - j_{sa} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}^{(\cdot)} \\
 & \sum_{j_{ik} = l_{ik} + n - D}^{l_s + j_{sa}^{ik} - l} \sum_{(j_i = j_{ik} + l_i - l_{ik})}^{(\cdot)} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{(\cdot)} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$D \geq n < n \wedge l_s > D - n + 1 \wedge$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned} & \sum_{n_i=n+k}^{(l_{ik}+n-D-j_{sa}^{ik})} \sum_{n_{is}=n+k-j_s+1}^{(n_i+n-D)} \\ & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{l+1} \sum_{n_s=n-j_i+1}^{(n_i+n-D)} \\ & \sum_{n_i=n+k}^n \sum_{n_{is}=n+k-j_s+1}^{(n_i-j_s+1)} \\ & \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-k_2)} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \\ & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\ & \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \\ & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\ & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\ & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \end{aligned}$$

GÜLDÜNKYA

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_{ik} + n - D - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = j_s + j_{sa}^{lk} - 1}^{l_{ik} - l + 1} \sum_{(j_i = j_{ik} + l_i - l_{ik})}^{()}$$

$$\sum_{n+l_k}^n \sum_{(n_{is} = n - l_{ik} + 1)}$$

$$\sum_{n_{ik} + l_{k2} - j_{ik}}^{n_{is} + j_s - j_{ik} - 1} \sum_{(j_{i+1} = j_i + 1)}$$

$$\frac{(n_{is} - n - l_{k1} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n - l_{k1} - 1)!}{(j_{ik} - j_{ik} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k1})!}$$

$$\frac{(n_{ik} - n_s - l_{k2} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_{k2})!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

$$\sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_{ik} + n - D - j_{sa}^{ik} + 1)}$$

$$\sum_{j_{ik} = j_s + j_{sa}^{lk} - 1}^{()} \sum_{(j_i = j_{ik} + l_i - l_{ik})}$$

GÜLDENWA

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i + j_{sa}^{ik} - 1 \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa}^i - 1 \wedge$$

$$s \in \{j_{sa}^s, \dots, \mathbb{k}_1, \dots, j_{sa}^{ik}, \dots, \mathbb{k}_2, \dots, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k}$$

$$\mathbb{k}_z : z = 1 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n-D)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\frac{\sum_{n_{ik}=n+l_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_2)} (n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - l_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_1)!}$$

$$\frac{(n_{ik} - n_s - l_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - l_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (n - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=l_i+n-D)}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_2)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_1 - l_2 - j_{sa}^s)!}{(n_i - n - l_1 - l_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

GÜLDÜNKYA

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_{z \mathcal{S}}^{j_{ik}, j_i} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_s + n - D)}^{(l_i + j_{sa}^{ik} - l - s + 1)} \sum_{(j_{ik} = l_i + n + j_{sa}^{ik} - D - s)}^{(j_i = j_{ik} + l_i - l_{ik})} \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{j_s=j_{ik}+j_{sa}^{ik}+1}^{()} \sum_{i=j_{ik}+l_i-l_{ik}}^{l_s+l_i-l} \sum_{n_i=n+l_k}^{n+l_k} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_{k_2}}^{n+l_k-l_{k_1}} \sum_{n_i=n+l_k}^{n+l_k} \sum_{n_s=n_{ik}+j_{ik}-j_i-l_{k_2}}^{n+l_k-l_{k_1}}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l_s > D - n + 1 \wedge$$

$$D + l_i + s - n - 1 \leq l \leq D - n + 1 \wedge$$

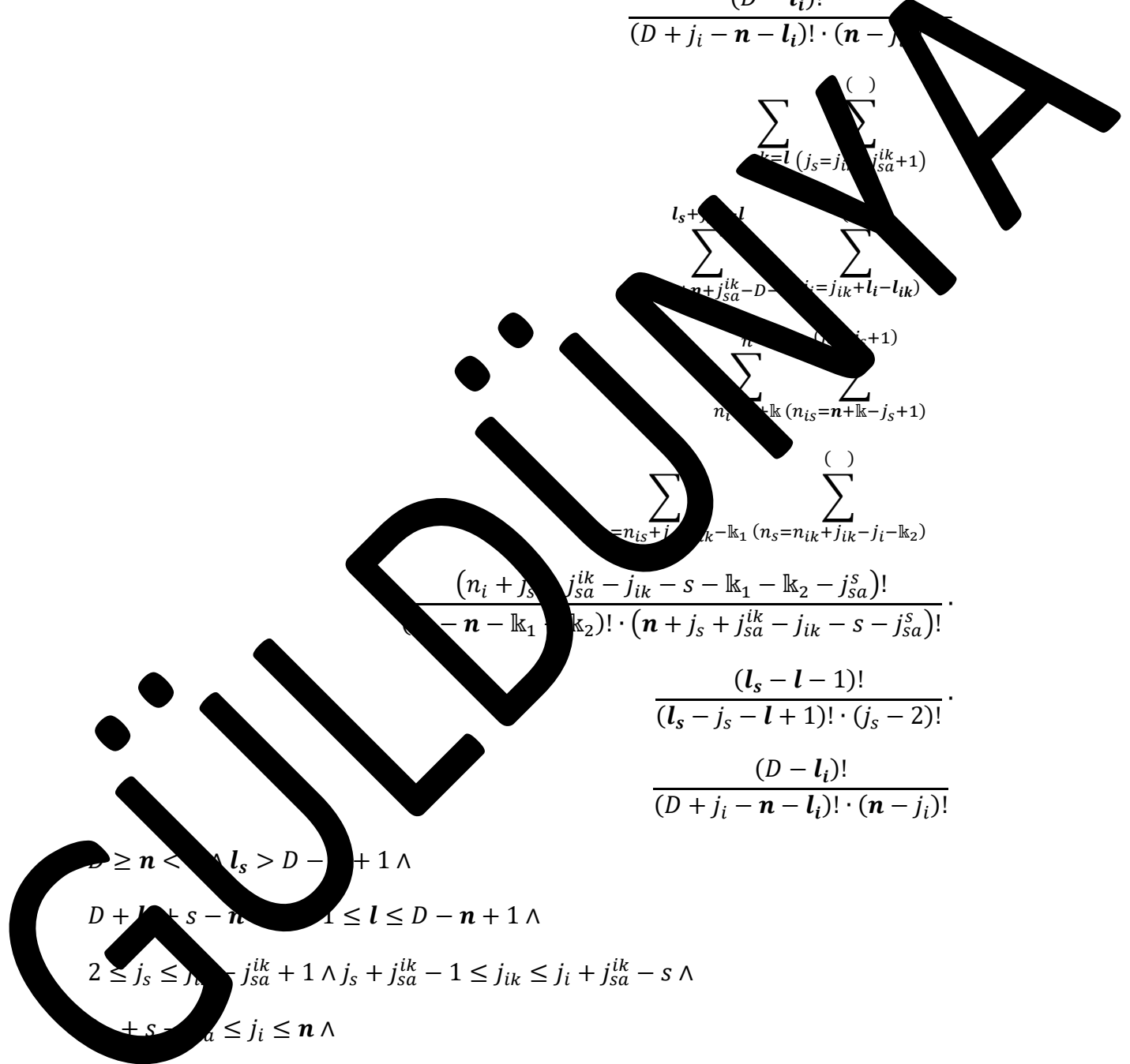
$$2 \leq j_s \leq j_{ik} + j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_s + s - j_{sa}^s \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$



$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_s+n_{sa}-j_{sa}^{ik+1})}^{(l_s-l+1)}$$

$$\sum_{(j_{ik}=j_i+l_{ik}-l_{sa}^{ik+1})}^{(l_{ik}+s)}$$

$$\sum_{(n_s=n_{sa}-j_{sa}^{ik})}^{(n_i-j_s)}$$

$$\sum_{(n_i=n_{sa}-j_{sa}^{ik+1})}^{(n_i-j_s)}$$

$$\sum_{(n_i=n_{sa}-j_{sa}^{ik+1})}^{(n_i-j_s)}$$

$$\sum_{(n_i=n_{sa}-j_{sa}^{ik+1})}^{(n_i-j_s)}$$

$$\sum_{(n_i=n_{sa}-j_{sa}^{ik+1})}^{(n_i-j_s)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{ik} - k_1 - 1)!}{(j_{ik} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_s - k_2 - 1)!}{(j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik+1})}^{()}$$

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$$\sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_s+s-l)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k1}} \sum_{(n_s=n_{ik}+j_s-j_i-l_{k2})}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k1} - j_s)!}{(n_i - n - l_{k1} - l_{k2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k1} - j_{sa}^s)!} \cdot \frac{(l_s - l + 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l)!}{(D + j_s - n - l_i)! \cdot (n - j_i)!}$$

$$D + l_s + s - n - l_i + 1 \leq l \leq D - n + 1 \wedge$$

$$2 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{ik} - j_{sa}^{ik} \leq j_{ik} \leq j_s + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - j_{ik} - l_{ik} \wedge$$

$$D \geq n < n \wedge l = 0 \wedge$$

$$j_s < j_{sa}^i - 1 \vee j_s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{ \dots, l_{k1}, j_{sa}^{ik}, \dots, l_{k2}, j_{sa}^i \} \wedge$$

$$l_{k1} > 4 \wedge l_{k2} = s + l_{k1} \wedge$$

$$l_{k2}: z = 2 \wedge l_{k1} = l_{k2} - 2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l} \sum_{(j_s=l_s+n-D)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{(\quad)}$$

$$\frac{\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \frac{(n_{ik} - n_s - l_{k_2} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_{k_2})!} \cdot \frac{(n - j_i - n - j_i - 1)!}{(n_s - j_i - n - j_i - 1)!} \cdot \frac{(n - j_s - l - 1)!}{(n - j_s - l - 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_i + l_{ik} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()} \sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{()} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}.$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()} \sum_{j_{ik}=j_{sa}^{ik}+1}^{j_i+j_{sa}^{ik}-s} (l_{ik}+s-l-j_{sa}^{ik}+1) \sum_{(j_i=s+1)}^{(n_i-j_s+1)} \sum_{n_i=n+k}^n \sum_{(n_s=n+k-j_s+1)}^{(n_i-n_{is}-1)!} \frac{(n_{is}+j_s-j_{ik}-k_1)}{n_{ik}=n+k_2-j_{ik}+1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \frac{(j_s-2)! \cdot (n_i-n_{is}-j_s+1)!}{(n_{is}-n_{ik}-k_1-1)!} \cdot \frac{(n_{is}-n_{ik}-k_1-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-k_1)!}$$

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$$\begin{aligned}
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(l_i - 1)!}{(D + j_{ik} - n - l_i)! \cdot (j_i)!} + \\
 & \sum_{j_{sa}^{ik} = 0}^{l_{ik} - 1} \sum_{j_{ik} = 0}^{(l_i - l + 1) - j_{sa}^{ik}} \sum_{j_i = l_{ik} + s - l - j_{sa}^{ik} + 2}^{(n_i - j_s + 1) - j_{ik} - j_{sa}^{ik} + 1} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot
 \end{aligned}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(\)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\)}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{lk}-s}^{(l_{ik}+s-l-j_{sa}^{lk})} \sum_{(s+1)}^{(n_i+1)}$$

$$\sum_{n+l}^n \sum_{(n_i=n_i+1)}$$

$$\frac{(n_i + j_s + j_{sa}^{lk} - s - \dots - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_i + j_s + j_{sa}^{lk} - s - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq \dots \wedge l_s \leq D - n \wedge \dots$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{lk} + 1 \wedge \dots + j_{sa}^{lk} - 1 \leq j_{ik} \leq j_i + j_{sa}^{lk} - s \wedge$$

$$j_{ik} - s - j_{sa}^{lk} \leq j_i - \dots \wedge$$

$$l_{k_1} - j_{sa}^{lk} - 1 = l_s \wedge l_i - j_{sa}^{lk} - s > l_{ik} \wedge$$

$$l_i \leq D + s - \dots \wedge$$

$$D > n < n \wedge I = k > 0 \wedge$$

$$j_{sa}^{lk} < j_{sa}^i - \dots \wedge j_{sa}^s < j_{sa}^{lk} - 1 \wedge$$

$$s: \{j_{sa}^i, \dots, k_1, j_{sa}^{lk}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fzS_{j_s, j_{ik}, j_i} = \sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\sum_{j_{ik}=j_{s_a}^{ik}+1}^{j_i+j_{s_a}^{ik}-s} \sum_{(j_i=s+l)}^{(l_s+s-l)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+l_{k_2})}^{(n_i+j_{ik}-j_i-k_2)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_{ik} - k_2 - 1)!}{(j_i - j_s - 1)! \cdot (n_{is} + j_{ik} - n_s - j_i - k_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{s_a}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{s_a}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\sum_{j_{ik}=j_{s_a}^{ik}+1}^{l_s+j_{s_a}^{ik}-l} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\frac{\sum_{n_{ik}=n+l_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}}{(n_i - n_{is} - 1)!} \cdot \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!}$$

$$\frac{(n_{ik} - n_s - l_{k_2} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - l_{k_2})!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa} - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (l_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + 1 - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{(j_i=s+1)}^{()}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, \dots, j_i} = \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \sum_{k=l}^{()} \sum_{j_s=j_{ik}+s-l_{ik}}^{()} \sum_{i=l+1}^{()} \sum_{j_{ik}=j_{sa}^{ik}}^{()} \sum_{j_i=j_{ik}+s-j_{sa}^{ik}}^{()} \sum_{n_{is}+k}^{()} \sum_{n_s=n_{ik}+j_{ik}-j_i-k_2}^{()} \frac{(n_i + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\geq n < n \wedge l \neq i \wedge l \leq D - n + 1 \wedge$$

$$1 \leq j_i \leq j_{ik} - j_{sa}^{ik} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$j_s - j_{sa}^{ik} = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

$$\sum_{n_{ik}=n_{is}-j_{ik}+1}^{n_{is}+\mathbb{k}-(n_{is}+n+\mathbb{k}-j_{ik})}^{(n_i-l+1)}$$

$$\sum_{n_{ik}=n_{is}-j_{ik}+1}^{n_{is}-j_{ik}-\mathbb{k}_1}^{(n_{is}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_{is}-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!}$$

$$\frac{(n_{is}-n_{is}-\mathbb{k}_1-1)!}{(n_{is}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}$$

$$\frac{(n_{ik}-n_s-\mathbb{k}_2-1)!}{(j_i-n_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-\mathbb{k}_2)!}$$

$$\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!}$$

$$\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!}$$

$$\frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!}$$

$$\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_i - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l_i - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_i \wedge$

$l_i \leq D + s - n \wedge$

$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$

$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge$

$s \in \{j_{sa}^s, \dots, \mathbb{k}_1, \dots, j_{sa}^{ik}, \dots, \mathbb{k}_2, \dots, j_i\} \wedge$

$s > 1 \wedge s = s + \mathbb{k}$

$\mathbb{k}_z: z = \dots \wedge \mathbb{k} = \mathbb{k}_1 + \dots \Rightarrow$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s}^{(l_i-l+1)} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\frac{\sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} (n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (\mathbf{n} - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa} - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (l_i + j_{sa} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + \mathbf{n} - l_i)! \cdot (\mathbf{n} - j_i)!}$$

$$\sum_{k=l}^{(l_{ik}-l-j_{sa}^{ik}+2)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$l_i \leq D + s - n \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned} j_s, j_{ik}, j_i &= \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_i-l+1)} \\ &\sum_{j_{ik}=j_s+l_{ik}-l_s}^{(l_i-l+1)} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})} \\ &\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \\ &\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\ &\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\ &\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\ &\frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \\ &\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \end{aligned}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=1}^{(l_s - l + 1)} \sum_{j_s=2}^{(j_s - 1)} \sum_{j_{ik}=j_s + l_{ik}}^{(j_{ik} - 1)} \sum_{j_i=j_{ik} + s - j_{sa}^{ik}}^{(j_i - 1)} \sum_{j_{sa}^{ik}=j_i + 1}^{(j_{sa}^{ik} - 1)} \sum_{n_{is}=n + k}^{(n_{is} - 1)} \sum_{k_1=0}^{(k - 1)} \sum_{k_2=0}^{(k - k_1 - 1)} \frac{(n_i + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n - n_{is} - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l \leq D - n + 1 \wedge$$

$$1 \leq j_i \leq j_{ik} - j_{sa}^{ik} \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$j_{sa}^{ik} - j_{sa}^{ik} = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$s > 4 \wedge s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_{ik}+s-l-j_{sa}^{ik}+1)}^{(n-D)}$$

$$\frac{(n_i-j_{ik}-\mathbb{k}_1)!(n_i+j_{ik}-j_i-\mathbb{k}_2)!}{(j_i-j_{ik}-1)!(n_{ik}+j_{ik}-n_s-j_i-\mathbb{k}_2)!}$$

$$\frac{(n_{ik}-n_s-\mathbb{k}_2-1)!}{(j_i-j_{ik}-1)!(n_{ik}+j_{ik}-n_s-j_i-\mathbb{k}_2)!}$$

$$\frac{(n_s-1)!}{(n_s+j_i-n-1)!(n-j_i)!}$$

$$\frac{(l_s-l-1)!}{(l_s-j_s-l+1)!(j_s-2)!}$$

$$\frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_{ik}+l_i-j_i-l_{ik})!(j_i+j_{sa}^{ik}-j_{ik}-s)!}$$

$$\frac{(D-l_i)!}{(D+j_i-n-l_i)!(n-j_i)!} +$$

$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}-l+1} \sum_{(j_i=l_{ik}+s-l-j_{sa}^{ik}+2)}^{(l_i-l+1)}$$

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$$\frac{\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \frac{(n_{ik} - n_s - l_{k_2} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_{k_2})!} \cdot \frac{(n_s - j_i - n - l - 1)!}{(n_s - j_i - n - l - 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_s - l_{ik} - s)!}{(j_{ik} + l_{k_1} - j_i - l_{k_1})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} - \sum_{k=l}^{\binom{()}{}} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{\binom{()}{}}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s} \sum_{(j_i=l_i+n-D)}^{(l_{ik}+s-l-j_{sa}^{ik}+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{\binom{()}{}}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\quad)} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{(\quad)} \sum_{j_{ik} = j_{sa}^{ik} + 1}^{j_i + j_{sa}^{ik} - s} \sum_{(j_i = l_i + n - D)}^{(l_s + s - l)} \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\begin{aligned}
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
& \frac{(l_i - 1)!}{(D + j_{ik} - n - l_i)! \cdot (j_i)!} + \\
& \sum_{j_{ik}=j_{sa}^{ik}+1}^{\binom{(\cdot)}{j_{ik}+l_i-1}} \sum_{j_i=l_s+s-l+1}^{\binom{(\cdot)}{j_i+l_s-l_{ik}}} \\
& \sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)} \\
& \sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} \\
& \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
& \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
& \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
& \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
& \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
& \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot
\end{aligned}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-)} \sum_{(=l_i+n-D)}$$

$$\sum_{(n)}^{(n_i+1)} \sum_{(=n+k)}^{(n_{is}=n_i+1)}$$

$$\frac{\sum_{(n_{ik}=n_{is}-j_{ik}-k_1)}^{()} \sum_{(=n-k_2)}^{()} \sum_{(=j_i-k_2)}^{()}}{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq 1 \wedge l_s \leq D - n - 1 \wedge$$

$$1 < j_s \leq j_{ik} + j_{sa}^{ik} + 1 \wedge j_{sa}^{ik} + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i - n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_s \leq D + j_s + s - n - 1 \wedge$$

$$D > n \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j_i=l_i+n-)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2- }^{n_{is}+j_s-j_{ik}} \sum_{(n_{is}+j_{ik}-n_{ik}-k_2)}^{(n_i+n_{ik}-j_i-k_2)}$$

$$\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - - k_2 - 1)!}{(j_i - - 1)! \cdot (n_{is} + j_{ik} - n_s - j_i - k_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\frac{\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} (n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - k_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa} - l_{ik} - s)!}{(j_{ik} + l_i - j_{sa} - l_{ik})! \cdot (l_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + 1 - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{(\)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(\)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-k_2)}^{(\)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - k_2 - j_{sa}^s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz S_{j_s, j_i} = \sum_{k=l}^{()} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_i+n+j_{sa}^{ik}-D-s-1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot$$

$$\frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot$$

$$\begin{aligned}
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=0}^{l_i - l} \sum_{j_s = j_{ik} + l_s - k}^{l_i - l + 1} \sum_{j_{ik} = l_i + k}^{l_i - l + 1} \sum_{j_{sa}^{ik} = D - s}^{l_i - l + 1} \sum_{j_i = j_{ik} + s - j_{sa}^{ik}}^{l_i - l + 1} \\
 & \sum_{n_i = n + k}^{n_i - j_s + 1} \sum_{n_{is} = n + k - j_s + 1}^{(n_i - j_s + 1)} \sum_{n_{ik} = n + k_2 - j_{ik} + 1}^{n_{is} - j_{ik} - k_1} \sum_{n_s = n - j_i + 1}^{(n_{ik} + j_{ik} - j_i - k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot
 \end{aligned}$$

GÜLDÜNYA

$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{(\cdot)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+s-j_i^s)}^{(\cdot)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{ik}} \sum_{(n_{ik}+j_{ik}-j_i^s)}^{(\cdot)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_{ik} + j_{ik} - j_i^s - j_{sa}^s)!} \cdot \frac{(l_k - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq n - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_s^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq l_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + l_s - j_s^{ik} \leq j_i \leq l_i \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_i + j_s - s > l_i \wedge$$

$$D + l_s - n < l_i \leq D - l_s + s - l - 1 \wedge$$

$$D \geq n < l_i \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} < l_i - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}^i\} \wedge$$

$$l_i \wedge l_s - s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z S_{j_s j_{ik} j_i} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=2)}^{(\cdot)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_1})} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (j_s-n_{is}-j_{ik}-l_{k_1})!} \cdot \\
 & \frac{(n_{ik}-n_{ik}-l_{k_2})!}{(j_i-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_s-j_i-l_{k_2})!} \cdot \\
 & \frac{(n_s-j_i-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_i+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=l} \sum_{(j_s=l_i+n-D-s+1)}^{(l_{ik}-l-j_{sa}^{ik}+2)} \\
 & \sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_i + j_{sa}^{ik} - l_i - s)!}{(j_{ik} + l_i - l_s - 1)! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{(l_{ik} - l - j_{sa}^{ik} + 2)} \sum_{(j_s = l_i + n - D - s + 1)} \\
 & \sum_{j_{ik} = j_s + l_{ik} - l_s} \sum_{(j_i = j_{ik} + s - j_{sa}^{ik})}^{()} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{()} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz = \sum_{k=l}^{l_i+n-D-s} \sum_{(j_s=2)}^{(l_i+n-D-s)} j_{ik} \cdot j_i =$$

$$\sum_{k=j_s+l_{ik}-l_s}^{(l_i-l+1)} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}$$

$$\sum_{j_{ik}=j_s+l_{ik}}^{(l_s-l+1)} \sum_{(j_{sa}^{ik})}$$

$$(n_i - j_s + 1)$$

$$\sum_{(n_i+n+k)} \sum_{(n_i+n+k-j_s+1)}$$

$$n_{is} + j_{ik} - k_1 \quad (n_{ik} + j_{ik} - j_{sa}^{ik})$$

$$\sum_{(n_i+n+k_2-j_{ik})} \sum_{(n_s=n-j_i+1)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 1)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_s - k_2 - 1)!}{(j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_i+n-D-s+1)}$$

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$$\sum_{j_{ik}=j_s+l_{ik}-l_s} \sum_{(j_i=j_{ik}+s-j_{sa}^{ik})}^{()}$$

$$\sum_{n_i=n+l}^n \sum_{(n_s=n+l-j_s)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n_{ik}+j_i-j_{ik_2})}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - k_1 - j_s)!}{(n_i - n - k_1 - k_2)! \cdot (n + j_s - j_{sa}^{ik} - j_{ik} - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l)!}{(D + j_s - n - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$

$D + l_s + s - n - l_i + 1 \leq l$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s - j_{sa}^{ik} - 1 \leq j_{ik} - j_i + j_{sa}^{ik} = s \wedge$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$

$l_{ik} - k_1 + 1 = l_s - j_{sa}^{ik} + j_{sa}^{ik} - s > l_{ik}$

$D - s - n < l_i \leq D + l_s + s - n - l_i \wedge$

$D \geq n < n \wedge l = k_1 = 0 \wedge$

$j_{sa}^{ik} < j_{sa}^{ik} + 1 \wedge j_{sa}^s < j_s^s + 1 \wedge$

$s: \{j_s^s, \dots, k_1, j_s^s, \dots, z, j_{sa}^i\} \wedge$

$s > 4 \wedge s = s + k \wedge$

$k: z = 2, k = k_1 + k_2 \Rightarrow$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{()}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j_{sa}^{ik}+1}^{l_{ik}-l+1} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{(n_{ik}+j_{ik}-j_i-l_{k_1})} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (j_s-n_{is}-j_{ik}-l_{k_1})!} \cdot \\
 & \frac{(n_{ik}-n_{ik}-l_{k_2}-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-l_{k_2})!} \cdot \\
 & \frac{(n_s-j_i-1)! \cdot (n-j_i)!}{(n-1)!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_i+j_{sa}^{ik}-l_{ik}-s)!}{(j_i+l_i-j_i-l_{ik})! \cdot (j_i+j_{sa}^{ik}-j_{ik}-s)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \cdot \\
 & \sum_{k=l}^{\binom{()}{}} \sum_{(j_s=j_{ik}+l_s-l_{ik})}^{\binom{()}{}} \\
 & \sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \sum_{(j_i=l_i+n-D)}^{\binom{()}{}} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})} \sum_{\binom{()}{}}^{\binom{()}{}}
 \end{aligned}$$

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$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq i - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_{ik} + s - n - j_{sa}^{ik} \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

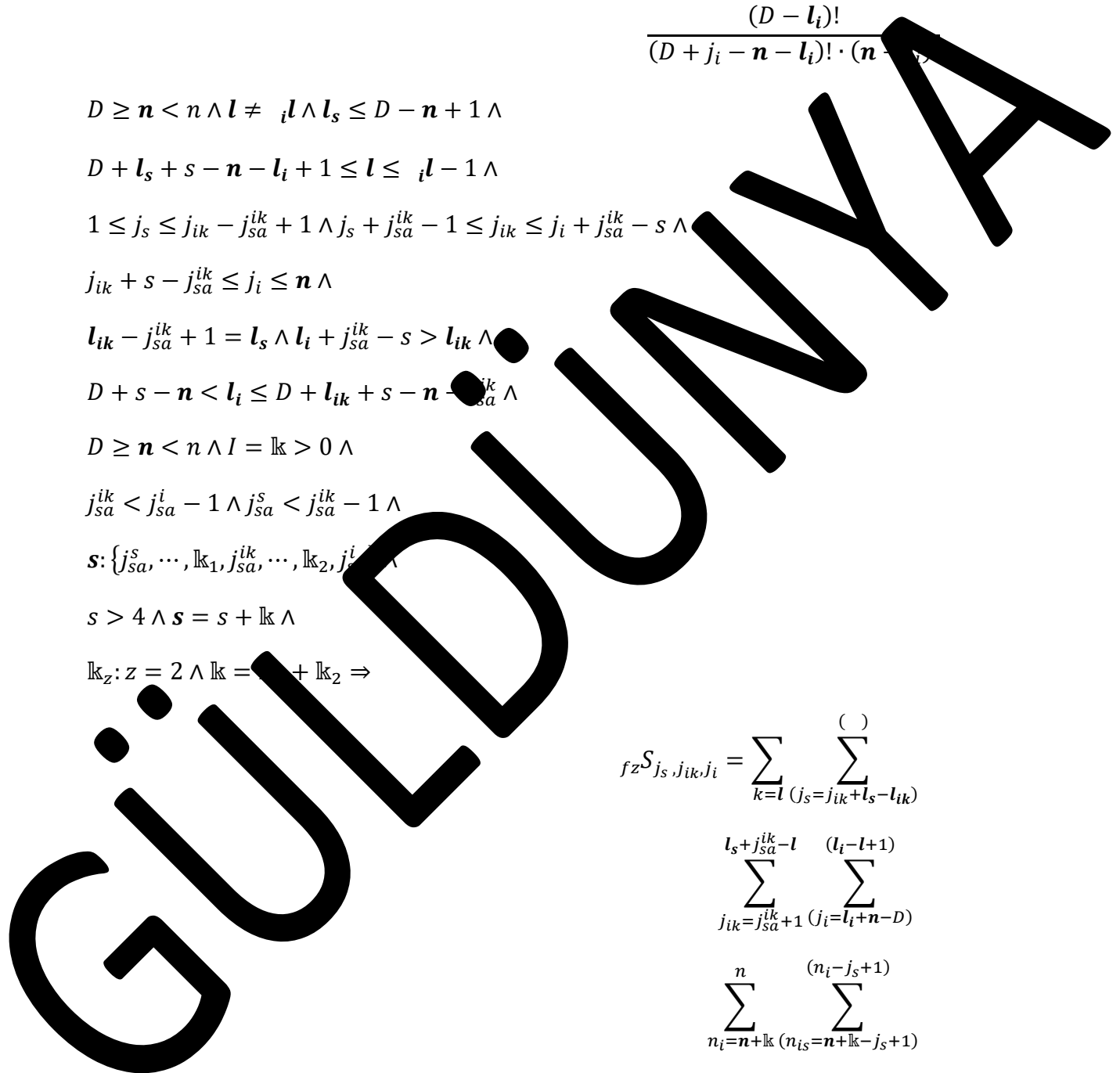
$$f_z S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(\cdot)} \sum_{(j_s = j_{ik} + l_s - l_{ik})}^{(\cdot)}$$

$$\sum_{j_{ik} = j_{sa}^{ik} + 1}^{l_s + j_{sa}^{ik} - l} \sum_{(j_i = l_i + n - D)}^{(l_i - l + 1)}$$

$$\sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)}$$

$$\sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$



$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i - 1)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_i + j_{sa}^{ik} - j_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - s)!}$$

$$\frac{(D - l_i)!}{(n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{l=1}^n \sum_{j_s=j_{ik}+l_s-l_{ik}}$$

$$\sum_{j_{ik}=j_i+j_{sa}^{ik}-s}^{(l_s+s-l)} \sum_{(j_i=l_i+n-D)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq i \wedge l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 = l_s \wedge l_i + j_{sa}^{ik} - s > l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned} & \sum_{i=2}^{(l_{ik}-l-j_{sa}^{ik}+j_s)} \sum_{i=l_i-l+1}^{(l_i-l+1)} \sum_{i_{ik}=j_s+l_{ik}-l_s}^{n} \sum_{(j_i=l_i+n-D)}^{(n_i-j_s+1)} \\ & \sum_{n_i=n+k}^{n} \sum_{(n_{is}=n+k-j_s+1)}^{(n_{is}+j_s-j_{ik}-k_1)} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\ & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \\ & \cdot \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\ & \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(l_i + j_{sa}^{ik} - l_{ik} - s)!}{(j_{ik} + l_i - j_i - l_{ik})! \cdot (j_i + j_{sa}^{ik} - j_{ik} - s)!} \end{aligned}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=l}^{(l_{ik} - l - j_{sa}^{ik} + 2)} \sum_{(j_s = l_i + n - D - s + 1)}^{(l_{ik} - l - j_{sa}^{ik} + 2)} \sum_{j_{ik} = j_s + l_{ik} - l_s}^{(n - l_{ik} + 1)} \sum_{n+l}^{(n_i - l_{ik} + 1)} \sum_{n+l}^{(n_i - l_{ik} + 1)} \frac{(n_i + j_s + j_{sa}^{ik} - l_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n_i + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq 0 \wedge l_s \leq D - n - l \wedge$$

$$1 \leq j_s \leq j_{ik} - l_{sa}^{ik} + 1 \wedge l_{sa}^{ik} + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} - s - j_{sa}^{ik} \leq j_i - l \wedge$$

$$l_{ik} - j_{sa}^{ik} - 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D - n < l \wedge l = l_{k_1} + l_{k_2} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, \dots, l_{k_1}, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + l_{k_1} \wedge$$

$$l_{k_2}: z = 2 \wedge l_{k_2} = l_{k_1} + l_{k_2} \Rightarrow$$

$$\begin{aligned}
 f_{z^S} S_{j_s, j_{ik}, j_i} &= \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \\
 &\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=s+1)}^{(l_s+s-l)} \\
 &\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{ik}=n+l_{k_2}-j_{i_2}+1}^{n_{is}+j_s-j_{ik}} \sum_{(n_s=n-j_i+l_{k_2})}^{(n_i+j_{ik}-j_i-l_{k_2})} \\
 &\frac{(n_i-n_{i_2}-1)!}{(j_s-2)! \cdot (n_{i_2}-j_s+1)!} \cdot \\
 &\frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-l_{k_1})!} \cdot \\
 &\frac{(n_{ik}-n_{i_2}-l_{k_2}-1)!}{(j_i-j_{i_2}-1)! \cdot (n_{i_2}+j_{ik}-n_s-j_i-l_{k_2})!} \cdot \\
 &\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 &\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 &\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 &\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} +
 \end{aligned}$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_i-l+1)} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

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$$\frac{\sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} (n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + \mathbf{n} - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=s+1)}^{()}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

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$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^l - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^l\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fz^S j_{ik} j_i = \sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s + j_{sa}^{ik} - l} \sum_{(j_i=j_{ik}+l_i-l_{ik})} ()$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!}$$

$$\frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!}$$

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$$\begin{aligned}
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{l_i-l+1} \sum_{j_s=j_{ik}}^{j_s=j_{ik}-l+1} \binom{j_s}{j_s=j_{ik}-l+1} \cdot \\
 & \sum_{n_i=n+l_k}^{n_i=n+l_k} \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \binom{n_i-j_s+1}{n_{is}=n+l_k-j_s+1} \cdot \\
 & \sum_{n_{ik}=n+l_k-j_{ik}+1}^{n_{ik}=n+l_k-j_{ik}-l_1} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-l_2)} \binom{n_{ik}+j_{ik}-j_i-l_2}{n_s=n-j_i+1} \cdot \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - l_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot
 \end{aligned}$$

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$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}+1}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+l_i-l)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n_{ik}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_k} \sum_{(n_{ik}+j_{ik}-j_i-l)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - l_k - j_{sa}^s)!}{(n_i - n - l_k - 1)! \cdot (n_{is} + j_{sa}^{ik} - j_{sa}^s)!} \cdot \frac{(l_i - l - 1)!}{(j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq n - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_{sa}^{ik} + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq j_{sa}^{ik} + j_{sa}^{ik} - s$$

$$l_{ik} - j_{sa}^{ik} + 1 > 0 \wedge l_i + j_s - s = l_k \wedge$$

$$l_{ik} \leq j_{sa}^{ik} + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} \leq j_{sa}^{ik} - 1 \wedge j_{sa}^{ik} \leq j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, l_{sa}^s, j_{sa}^{ik}, \dots, l_{sa}^{ik}, j_{sa}^i\} \wedge$$

$$l_{sa}^{ik} = s + l_k \wedge$$

$$l_{k_z}: z = 2 \wedge l_k = l_{k_1} + l_{k_2} \Rightarrow$$

$$fz_{j_s, j_{ik}, j_i}^s = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\begin{aligned}
 & \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{(n_{ik}+j_{ik}-j_i-l_{k_1})} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (j_s-n_{is}-j_{ik}-l_{k_1})!} \cdot \\
 & \frac{(n_{ik}-n_{ik}-l_{k_2}-1)!}{(j_i-j_{ik}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-l_{k_2})!} \cdot \\
 & \frac{(n_s-j_i-n-1)! \cdot (n-j_i)!}{(n-1)!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{lk}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{lk}+1)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} \cdot \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{()} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{lk}-1}^{()} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{()} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{()}
 \end{aligned}$$

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$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$f_z S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=l_i+n-D)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

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$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - l_s + 1)!}$$

$$\frac{(l_s - l_i)!}{(n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{l+1} \sum_{(j_s=2)}$$

$$\sum_{l_k=j_i+l_{ik}-l_i} \sum_{(j_i=l_s+s-l+1)}^{(l_i-l+1)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

GÜLDÜMÜŞA

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1)}$$

$$+s-l)$$

$$\sum_{j_i = j_i + l_{ik}} \sum_{(j_{ik} - l_{ik} - D)}$$

$$(n_i - j_s + 1)$$

$$\sum_{n+l_k} \sum_{(n+l_k - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} - j_{ik} - l_{k_1}} \sum_{(n_{ik} + j_{ik} - j_i - l_{k_2})}$$

$$\frac{(n_i + j_s - j_{sa}^{ik} - j_{ik} - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - l_{k_1} - l_{k_2} - 1)! \cdot (n_i + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq 1 \wedge l_s \leq n - 1 \wedge$$

$$1 \leq j_s - j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} < j_i \leq n$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - 1 \leq l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D > n \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, l_{k_1}, j_{sa}^{ik}, \dots, l_{k_2}, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(j_{ik}-j_{s_a}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{s_a}^{ik}+1)}$$

$$\sum_{j_{ik}=l_i+n+j_{s_a}^{ik}-D-s}^{l_s+j_{s_a}^{ik}-l} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+l_i}^n \sum_{(n_i+j_s+1)}^{(n_i+j_s+1)}$$

$$\sum_{i=1}^{n_i+j_s-j_{ik}-\mathbb{k}_1} \sum_{i=n-j_i+1}^{(n_{ik}+j_{ik}-j_{i_s})}$$

$$\frac{(n_i - n_{is})}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - j_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_i + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{is} - j_s - \mathbb{k}_2 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{s_a}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{s_a}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} +$$

$$\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=l_s+j_{s_a}^{ik}-l-s+1}^{l_i+j_{s_a}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

GÜLDÜZMAYA

$$\frac{\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \frac{(n_{ik} - n_s - l_{k_2} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_{k_2})!} \cdot \frac{(n - j_i - n_s - l - 1)!}{(n_s - j_i - n - l - 1)!} \cdot \frac{(n - j_s - l - 1)!}{(n - j_s - l - 1)! \cdot (j_s - 2)!} \cdot \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_i + l_{ik} - j_{sa}^{ik} + 1)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} -$$

$$\sum_{k=l}^{\binom{()}{}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{()}{}}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{\binom{()}{}}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{\binom{()}{}}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}.$$

GÜLDÜMBA

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge I = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_i+n-D-s)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-l-s+1}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\begin{aligned}
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(l_s - l)!}{(D + j_i - n - l_i)! \cdot (j_i - l_i)!} + \\
 & \sum_{k=0}^{(l_s - l + 1)} \sum_{l_i = D - s + 1}^{(l_s - l + 1)} \\
 & \sum_{j_i = j_s + j_{sa}^{ik} - 1}^{l_i + j_s - l - s + 1} \sum_{(j_i = j_{ik} + l_i - l_{ik})}^{()} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n + \mathbb{k}_2 - j_{ik} + 1}^{n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n - j_i + 1)}^{(n_{ik} + j_{ik} - j_i - \mathbb{k}_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot
 \end{aligned}$$

GÜLDÜMÜS

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_i + n - D - s + 1)}^{(l_s - l + 1)} \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1}^{(j_i - l_k + l_i - l_{ik})} \sum_{(n_{ik} = n_{is} - j_{ik} - l_{k_1} - l_{k_2})}^{(n_{ik} = n_{is} - j_{ik} - l_{k_1} - l_{k_2})} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n_{ik} - l_{k_1} - l_{k_2})! \cdot (n_i + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq 1 \wedge l_s \leq D - n - 1 \wedge$$

$$1 < j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i - n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i - j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_s \leq D + j_s + s - n - 1 \wedge$$

$$D - n - l_i \wedge I = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^i, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$\begin{aligned}
 f_{z^S} S_{j_s, j_{ik}, j_i} &= \sum_{k=l}^{(j_{ik}-j_{sa}^{ik}+1)} \sum_{(j_s=2)}^{(j_{ik}-j_{sa}^{ik}+1)} \\
 &\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=l_{ik}+n+s-D-j_{ik})}^{(l_s+s-l)} \\
 &\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 &\sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}+j_{ik}-l_{k_2}} \sum_{(n_s=n-j_i+1)}^{(n_{is}+j_s-j_{ik}-l_{k_1}+j_{ik}-l_{k_2})} \\
 &\frac{(n_i - n_{ik} - 1)!}{(j_s - 2)! \cdot (n_{is} - j_s + 1)!} \\
 &\frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - l_{k_1})!} \\
 &\frac{(n_{ik} - n_{ik} - l_{k_2} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{is} + j_{ik} - n_s - j_i - l_{k_2})!} \\
 &\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \\
 &\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \\
 &\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 &\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} + \\
 &\sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)} \\
 &\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \sum_{(j_i=l_s+s-l+1)}^{(l_{ik}+s-l-j_{sa}^{ik}+1)} \\
 &\sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)}
 \end{aligned}$$

GÜLDENYA

$$\frac{\sum_{n_{ik}=\mathbf{n}+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=\mathbf{n}-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)} (n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - \mathbb{k}_2)!} \cdot$$

$$\frac{(n_s - 1)!}{(n_s + j_i - \mathbf{n} - 1)! \cdot (n - j_i)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

$$\frac{(l_{ik} - l_s + j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa} - l_s)! \cdot (j_s - j_s - j_{sa}^{ik} + 1)!} \cdot$$

$$\frac{(D - l_i)!}{(D + \mathbf{n} - l_i)! \cdot (n - j_i)!} \cdot$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_s+s-l)} \sum_{(j_i=l_{ik}+\mathbf{n}+s-D-j_{sa}^{ik})}$$

$$\sum_{n_i=\mathbf{n}+\mathbb{k}}^n \sum_{(n_{is}=\mathbf{n}+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}^{()}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - \mathbf{n} - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (\mathbf{n} + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot$$

GÜLDÜNKYA

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$fzS \quad j_{ik} j_i = \sum_{k=l}^{(j_{ik} - j_{sa}^{ik} + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s + j_{sa}^{ik} - l} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot$$

$$\frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot$$

$$\frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot$$

$$\begin{aligned}
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{l_i-l+1} \sum_{j_s=k}^{(j_s)} \sum_{j_{ik}=j_{sa}^{ik}-l+1}^{(j_i-j_{ik}-l_{ik})} \sum_{n_i=n+k}^{(n_i-j_s+1)} \sum_{n_{is}=n+k-j_s+1}^{(n_i-j_s+1)} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_i-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot
 \end{aligned}$$

GÜLDÜZMAYA

$$\sum_{k=l}^{(\cdot)} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+l_i-l)}$$

$$\sum_{n_i=n+l_k}^n \sum_{(n_{is}=l_k-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_k} \sum_{(n_{ik}+j_{ik}-j_i)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - l_k - l_i - j_{sa}^s)!}{(n_i - n - l_k - l_i - j_{sa}^s)! \cdot (n_{ik} + j_{sa}^{ik} - l_k - j_{sa}^s)!}$$

$$\frac{(l_k - l - 1)!}{(l_k - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D - j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq l \wedge l_s \leq l - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq l_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + l_i - j_{sa}^{ik} \leq j_i \leq l_i$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_i + j_{sa}^{ik} - s = l_i \wedge$$

$$D + l_i - n < l_i \leq D - l_s + s - l_i - 1 \wedge$$

$$D \geq n < n \wedge l = l > 0$$

$$j_{sa}^{ik} < l_i - 1 \wedge j_{sa}^{ik} < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, j_{sa}^{ik}, \dots, l_k, j_{sa}^i\} \wedge$$

$$l_i \wedge l_i - s + l_k \wedge$$

$$l_k: z = 2 \wedge l_k = l_{k1} + l_{k2} \Rightarrow$$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l} \sum_{(j_s=2)}^{(l_{ik}+n-D-j_{sa}^{ik})}$$

$$\begin{aligned}
 & \sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \binom{(\quad)}{j_i=j_{ik}+l_i-l_{ik}} \\
 & \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-l_{k_1})} \\
 & \frac{(n_i-1)!}{(j_s-2)! \cdot (n_i-n_{is}+1)!} \cdot \\
 & \frac{(n_{is}-n_{ik}-l_{k_1}-1)!}{(j_{ik}-j_s-1)! \cdot (j_s-n_{is}-j_{ik}-l_{k_1})!} \cdot \\
 & \frac{(n_{ik}-n_{ik}-l_{k_2})!}{(j_i-j_{ik}-1)! \cdot (n_{ik}-j_{ik}-n_s-j_i-l_{k_2})!} \cdot \\
 & \frac{(n_s-j_i-1)!}{(n_s-j_i-n-1)! \cdot (n-j_i)!} \cdot \\
 & \frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!} \cdot \\
 & \frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s-l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!} \cdot \\
 & \frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!} + \\
 & \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=l_{ik}+n-D-j_{sa}^{ik}+1)}^{(l_s-l+1)} \\
 & \sum_{j_{ik}=j_s+j_{sa}^{ik}-1}^{l_{ik}-l+1} \binom{(\quad)}{j_i=j_{ik}+l_i-l_{ik}} \\
 & \sum_{n_i=n+l_k}^n \sum_{n_{is}=n+l_k-j_s+1}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{n_s=n-j_i+1}^{(n_{ik}+j_{ik}-j_i-l_{k_2})}
 \end{aligned}$$

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$$\begin{aligned}
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!} \cdot \\
 & \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!} \cdot \\
 & \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \\
 & \frac{(l - 1)!}{(l_s - l + 1)! \cdot (l - 2)!} \cdot \\
 & \frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{sa}^{ik} - 1)! \cdot (j_{ik} - j_{sa}^{ik} + 1)!} \cdot \\
 & \frac{(D - l)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \cdot \\
 & \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s = l_{ik} + n - D - j_{sa}^{ik} + 1)} \\
 & \sum_{j_{ik} = j_s + j_{sa}^{ik} - 1} \sum_{(j_i = j_{ik} + l_i - l_{ik})}^{()} \\
 & \sum_{n_i = n + \mathbb{k}}^n \sum_{(n_{is} = n + \mathbb{k} - j_s + 1)}^{(n_i - j_s + 1)} \\
 & \sum_{n_{ik} = n_{is} + j_s - j_{ik} - \mathbb{k}_1} \sum_{(n_s = n_{ik} + j_{ik} - j_i - \mathbb{k}_2)}^{()} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \\
 & \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}
 \end{aligned}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$

$$D + l_s + s - n - l_i + 1 \leq l \leq l_i - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + j_{sa}^{ik} - n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^i - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + k \wedge$$

$$k_z: z = 2 \wedge k = k_1 + k_2 \Rightarrow$$

$$f_z S_{j_s, n, j_i} = \sum_{k=l}^{(s-l+1)} \sum_{(j_s=2)}^{(l_i-l+1)} \sum_{j_{ik}=j_i+l_{ik}-l_i}^{(l_i-l+1)} \sum_{(j_i=l_i+n-D)}^{(l_i-l+1)} \sum_{n_i=n+k}^n \sum_{(n_{is}=n+k-j_s+1)}^{(n_i-j_s+1)} \sum_{n_{ik}=n+k_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-k_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-k_2)} \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!} \cdot \frac{(n_{is} - n_{ik} - k_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - k_1)!} \cdot \frac{(n_{ik} - n_s - k_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - k_2)!} \cdot \frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!} \cdot \frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s = j_{ik} - j_{sa}^{ik} + 1, \dots)}$$

$$\dots + s - l)$$

$$\sum_{j_s = j_i + l_{ik}} \dots (l_{ik} - D)$$

$$(n_i - j_s + 1)$$

$$\sum_{n + k} \sum_{(n_i + k - j_s + 1)}$$

$$\sum_{n_{ik} = n_{is} - j_{ik} - k_1} \sum_{n_{ik} = n_{ik} + j_{ik} - j_i - k_2}$$

$$\frac{(n_i + j_s - j_{sa}^{ik} - j_{ik} - k_1 - k_2 - j_{sa}^s)!}{(k_1 - 1)! \cdot (n_i + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq 1 \wedge l_s \leq \dots - 1 \wedge$$

$$D + l_s - s - n - l_i + \dots \leq l \leq \dots - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} - j_s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + \dots > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + \dots < n < l_{ik} \leq D + l_s + j_{sa}^{ik} - n - 1 \wedge$$

$$D \geq n < n \wedge l = k > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, k_1, j_{sa}^{ik}, \dots, k_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}^{(l_s-l+1)}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_i+j_{sa}^{ik}-l-s+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_{ik}=n_s-j_{ik}+1}^{n_{ik}+\mathbb{k} (n_{is}=n+\mathbb{k}-j_{ik})}^{(n_i-l+1)}$$

$$\sum_{(n_{ik}=n_s-j_{ik}+1)}^{(n_{ik}+\mathbb{k}_1-j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_{is}-n_{is}-1)!}{(j_s-2)! \cdot (n_{is}-j_s+1)!}$$

$$\frac{(n_{is}-n_{is}-\mathbb{k}_1-1)!}{(n_{is}-j_s-1)! \cdot (n_{is}+j_s-n_{ik}-j_{ik}-\mathbb{k}_1)!}$$

$$\frac{(n_{ik}-n_s-\mathbb{k}_2-1)!}{(j_i-\mathbb{k}-1)! \cdot (n_{ik}+j_{ik}-n_s-j_i-\mathbb{k}_2)!}$$

$$\frac{(n_s-1)!}{(n_s+j_i-n-1)! \cdot (n-j_i)!}$$

$$\frac{(l_s-l-1)!}{(l_s-j_s-l+1)! \cdot (j_s-2)!}$$

$$\frac{(l_{ik}-l_s-j_{sa}^{ik}+1)!}{(j_s+l_{ik}-j_{ik}-l_s)! \cdot (j_{ik}-j_s-j_{sa}^{ik}+1)!}$$

$$\frac{(D-l_i)!}{(D+j_i-n-l_i)! \cdot (n-j_i)!}$$

$$\sum_{k=l}^{()} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{()}$$

$$\sum_{j_{ik}=l_i+n+j_{sa}^{ik}-D-s}^{l_s+j_{sa}^{ik}-l} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

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$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_i=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_i+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_1)}^{(\quad)}$$

$$\frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l - 1)! \cdot (l - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - l - l_i)! \cdot (n - j_i)!}$$

$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1$

$D + l_s + s - n - l_i + 1 \leq l \leq i - 1$

$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_i \leq j_i + j_{sa}^{ik} -$

$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n$

$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik}$

$D + s - n < l_i \leq D + l_s + s - n - 1$

$D \geq n < n \wedge l = i \wedge l_s > 0$

$j_{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^i - 1$

$s: \{ \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i \}$

$s > 4 \wedge l_s = s + \mathbb{k} \wedge$

$\mathbb{k}_z: z = 2 \wedge \mathbb{k}_1 = \mathbb{k}_2 \Rightarrow$

$$fz S_{j_s, j_{ik}, j_i} = \sum_{k=l}^{(l_s-l+1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=j_i+l_{ik}-l_i} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{(l_{ik}+s-l-j_{sa}^{ik}+1)}$$

$$\begin{aligned}
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n+l_{k_2}-j_{ik}+1}^{n_{is}+j_s-j_{ik}-l_{k_1}} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-l_{k_2})} \\
 & \frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n - j_s + 1)!} \cdot \\
 & \frac{(n_{is} - n_{ik} - l_{k_1} - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - j_{ik} - l_{k_1})!} \cdot \\
 & \frac{(n_{ik} - n_s - l_{k_2} - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - l_{k_2})!} \cdot \\
 & \frac{(n_s - j_i - n - l - 1)!}{(n_s - j_i - n - l - 1)! \cdot (j_s - 2)!} \cdot \\
 & \frac{(l_{ik} - j_{sa}^{ik} + 1)!}{(n_i + l_{ik} - j_{sa}^{ik})! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!} \\
 & \frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!} \\
 & \sum_{k=l}^{\binom{D}{j_s}} \sum_{(j_s=j_{ik}-j_{sa}^{ik}+1)}^{\binom{D}{j_s}} \\
 & \sum_{j_{ik}=j_i+l_{ik}-l_i}^{\binom{D}{j_s}} \sum_{(j_i=l_{ik}+n+s-D-j_{sa}^{ik})}^{\binom{D}{j_s+l-s-l}} \\
 & \sum_{n_i=n+l_k}^n \sum_{(n_{is}=n+l_k-j_s+1)}^{(n_i-j_s+1)} \\
 & \sum_{n_{ik}=n_{is}+j_s-j_{ik}-l_{k_1}}^{\binom{D}{j_s}} \sum_{(n_s=n_{ik}+j_{ik}-j_i-l_{k_2})}^{\binom{D}{j_s}} \\
 & \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n_i - n - l_{k_1} - l_{k_2})! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}
 \end{aligned}$$

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$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$D \geq n < n \wedge l \neq i \wedge l_s \leq D - n + 1 \wedge$$

$$D + l_s + s - n - l_i + 1 \leq l \leq i \wedge l - 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$D + s - n < l_i \leq D + l_s + s - n - 1 \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2$$

$$fz^{S_{j_s, j_{ik}, j_i}} = \sum_{k=l}^{(l_s - l + 1)} \sum_{(j_s=2)}$$

$$\sum_{j_{ik}=l_{ik}+n-D}^{l_{ik}-l+1} \sum_{(j_i=j_{ik}+l_i-l_{ik})}^{()}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}^{n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n-j_i+1)}^{(n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(n_i - n_{is} - 1)!}{(j_s - 2)! \cdot (n_i - n_{is} - j_s + 1)!}$$

$$\frac{(n_{is} - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - j_s - 1)! \cdot (n_{is} + j_s - n_{ik} - j_{ik} - \mathbb{k}_1)!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - l)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(j_s + l_{ik} - j_{ik} - l_s)! \cdot (j_{ik} - j_s - j_{sa}^{ik} + 1)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{j_{sa}^{ik}=1}^{(j_{ik} - j_s - j_{sa}^{ik} + 1)} \sum_{l_s=0}^{(j_{ik} - l_s - j_{sa}^{ik} + 1)} \sum_{n_i=l_{ik}+n-D}^{(j_i - j_{ik} - l_i)} \sum_{(j_i - j_{ik} - l_i)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{is}=n+\mathbb{k}-j_s+1)}^{(n_i-j_s+1)}$$

$$\sum_{n_{ik}=n_{is}+j_s-j_{ik}-\mathbb{k}_1} \sum_{(n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2)}$$

$$\frac{(j_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(l_s - l - 1)!}{(l_s - j_s - l + 1)! \cdot (j_s - 2)!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$l_i \wedge l = l_i \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz S_{j_s, j_{ik}, l_i} \sum_{k=i}^{(\cdot)} \sum_{j_s=1}^{(\cdot)}$$

$$(l_i - i + 1) \sum_{j_{ik}=j_i+l_{ik}}^{(\cdot)} \sum_{j_i=s}^{(\cdot)}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{(n_{ik}=n-\mathbb{k}_2-j_{ik}+1)}^{(n_i-j_{ik}-l_{ik}+1)}$$

$$\sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-\mathbb{k}_2}$$

$$\frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - i)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!}$$

$$\frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - i - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

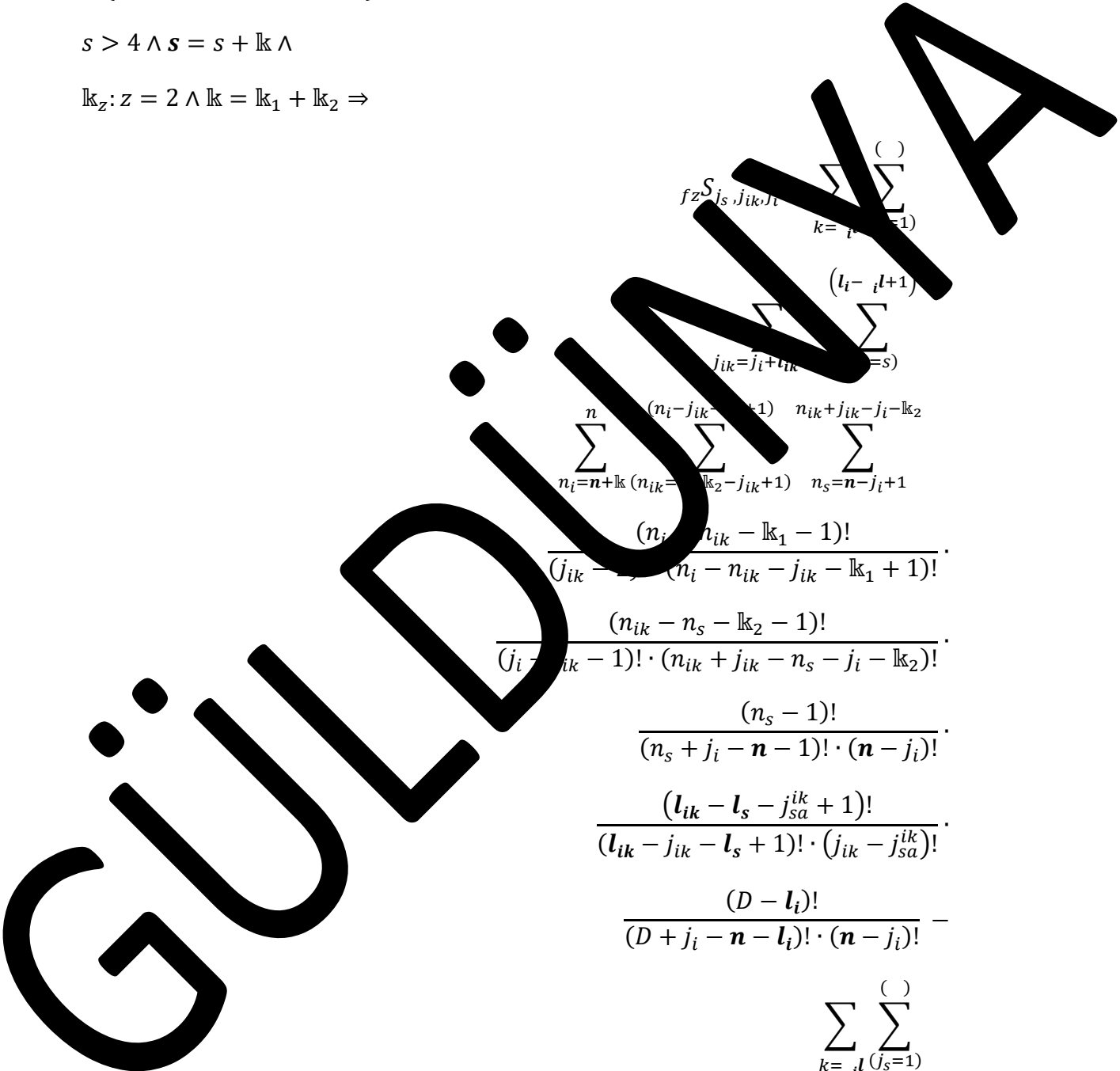
$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=i}^{(\cdot)} \sum_{j_s=1}^{(\cdot)}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{(\cdot)} \sum_{j_i=s}^{(\cdot)}$$



$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{(\cdot)}{n_{ik}=n_i-j_{ik}-\mathbb{k}_1+1}} \sum_{n_s=n_{ik}+j_{ik}-j_i-\mathbb{k}_2} \frac{(n_i + j_s + j_{sa}^{ik} - j_{ik} - s - \mathbb{k}_1 - \mathbb{k}_2 - j_{sa}^s)!}{(n_i - n - \mathbb{k}_1 - \mathbb{k}_2)! \cdot (n + j_s + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!} \cdot \frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - l_i)!}$$

$$D \geq n < n \wedge l = l \wedge l_s \leq D - n + 1 \wedge$$

$$1 \leq j_s \leq j_{ik} - j_{sa}^{ik} + 1 \wedge j_s + j_{sa}^{ik} - 1 \leq j_{ik} \leq j_i + j_{sa}^{ik} - s \wedge$$

$$j_{ik} + s - j_{sa}^{ik} \leq j_i \leq n \wedge$$

$$l_{ik} - j_{sa}^{ik} + 1 > l_s \wedge l_i + j_{sa}^{ik} - s = l_{ik} \wedge$$

$$l_{ik} \leq D + j_{sa}^{ik} - n \wedge$$

$$D \geq n < n \wedge l = \mathbb{k} > 0 \wedge$$

$$j_{sa}^{ik} < j_{sa}^i - 1 \wedge j_{sa}^s < j_{sa}^{ik} - 1 \wedge$$

$$s: \{j_{sa}^s, \dots, \mathbb{k}_1, j_{sa}^{ik}, \dots, \mathbb{k}_2, j_{sa}^i\} \wedge$$

$$s > 4 \wedge s = s + \mathbb{k} \wedge$$

$$\mathbb{k}_z: z = 2 \wedge \mathbb{k} = \mathbb{k}_1 + \mathbb{k}_2 \Rightarrow$$

$$fz^S_{j_s, j_{ik}, j_i} = \sum_{k=1}^n \sum_{l \binom{(\cdot)}{j_s=1}}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{l_{ik}-l+1} \sum_{\binom{(\cdot)}{j_i=j_{ik}+l_i-l_{ik}}}$$

$$\sum_{n_i=n+\mathbb{k}}^n \sum_{\binom{(\cdot)}{n_{ik}=n+\mathbb{k}_2-j_{ik}+1}}^{(n_i-j_{ik}-\mathbb{k}_1+1)} \sum_{n_s=n-j_i+1}^{n_{ik}+j_{ik}-j_i-\mathbb{k}_2} \frac{(n_i - n_{ik} - \mathbb{k}_1 - 1)!}{(j_{ik} - 2)! \cdot (n_i - n_{ik} - j_{ik} - \mathbb{k}_1 + 1)!} \cdot \frac{(n_{ik} - n_s - \mathbb{k}_2 - 1)!}{(j_i - j_{ik} - 1)! \cdot (n_{ik} + j_{ik} - n_s - j_i - \mathbb{k}_2)!}$$

$$\frac{(n_s - 1)!}{(n_s + j_i - n - 1)! \cdot (n - j_i)!}$$

$$\frac{(l_{ik} - l_s - j_{sa}^{ik} + 1)!}{(l_{ik} - j_{ik} - l_s + 1)! \cdot (j_{ik} - j_{sa}^{ik})!}$$

$$\frac{(D - l_i)!}{(D + j_i - n - l_i)! \cdot (n - j_i)!}$$

$$\sum_{k=1}^{(j_s)} \binom{(j_s)}{k}$$

$$\sum_{j_{ik}=j_{sa}^{ik}}^{(j_i)} \binom{(j_i)}{j_{ik}}$$

$$\sum_{n_i=n+l_k}^n \binom{(n_i)}{n_i - j_{ik} - l_{k_1}} \binom{(n_s)}{n_s = n_{ik} + j_{ik} - j_i - l_{k_2}}$$

$$\frac{(n_i + j_{sa}^{ik} - j_{ik} - l_{k_1} - l_{k_2} - j_{sa}^s)!}{(n - n - l_{k_1} - l_{k_2})! \cdot (n + j_{sa}^{ik} - j_{ik} - s - j_{sa}^s)!}$$

$$\frac{(D - l_i)!}{(D + s - n - l_i)! \cdot (n - s)!}$$

GÜLDENMYA

DİZİN

B

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.1.1.1.1/3-4

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.1.1.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.1.1.2.1/3-4

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.1.2.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.1.1.1/3-4

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.1.3.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bir bağımsız durumlu simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.1.1.1.1/230-231

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.1.1.1/187-188

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.1.1/321

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bir bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.1.1.2.1/230-231

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.1.2.1/187-188

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.2.1/321

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bir bağımsız durumlu bağımlı simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.1.1.2.1/230-231

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.1.3.1/187-188

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.3.1/321

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.1.4.1.1/3-4

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.4.1.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.4.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.1.4.2.1/3-4

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.4.2.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.4.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.1.4.3.1/3-4

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.4.3.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.4.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bağımsız durumlu

simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.1.1.1.1/233

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.1.1.1/190

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.1.1/324-325

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bir bağımlı-bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.1.1.2.1/233

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.1.2.1/190

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.2.1/324-325

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.1.1.3.1/233

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.1.3.1/190

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.3.1/324-325

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.1.1.4.1/3-4

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.1.4.1/190

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.4.1/324-325

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.1.6.2.1/3-4

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.6.2.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.6.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu

bağımlı simetrisinin son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.1.6.3.1/3-4

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.6.3.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.6.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin durumuna bağlı

tek kalan simetrik olasılık,
2.3.3.1.1.1.1.1/118

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.1.1.1/80-81

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.1.1/165

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin durumuna bağlı

tek kalan simetrik olasılık,
2.3.3.1.1.1.2.1/118

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.1.2.1/80-81

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.2.1/165

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin durumuna bağlı

tek kalan simetrik olasılık,
2.3.3.1.1.1.3.1/118

tek kalan düzgün simetrik olasılık,
2.3.3.2.1.1.3.1/80-81

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.1.1.3.1/165

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.2.1.1.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.2.1.1.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.2.1.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.2.1.2.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.2.1.2.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.2.1.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımlı
simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.2.1.3.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.2.1.3.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.2.1.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.2.2.1.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.2.2.1.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.2.2.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
bağımsız simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.2.2.2.1/3-4

tek kalan düzgün simetrik olasılık,
2.3.3.2.2.2.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.2.2.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
bağımlı simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.2.2.3.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.2.2.3.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.2.2.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bir bağımsız durumlu
simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.2.4.1.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.2.4.1.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.2.4.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bir bağımsız durumlu
bağımsız simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.2.4.2.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.2.4.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.2.4.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bir bağımsız durumlu
bağımlı simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.2.4.3.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.2.4.3.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.2.4.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumlu
simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.2.6.1.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.2.6.1.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.2.6.1.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumlu
bağımsız simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.2.6.2.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.2.6.2.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.2.6.2.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumlu
bağımlı simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.2.6.3.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.2.6.3.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.2.6.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımsız durumlu
simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.2.7.1.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.2.7.1.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.2.7.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımsız durumlu
bağımsız simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.2.7.2.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.2.7.2.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.2.7.2.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
bağımlı simetrisinin ilk ve son durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.3.2.7.3.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.3.2.7.3.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.3.2.7.3.1/4

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
ve herhangi bir durumunun bulunabileceği
olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.3.2.1.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.3.2.1.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.3.2.1.1/5

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımsız
simetrisinin ilk ve herhangi bir durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.3.1.2.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.3.1.2.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.3.1.2.1/5

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımlı
simetrisinin ilk ve herhangi bir durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.3.1.3.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.3.1.3.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.3.1.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
simetrisinin ilk ve herhangi bir durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.3.2.1.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.3.2.1.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.3.2.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
bağımsız simetrisinin ilk ve herhangi bir
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.3.2.2.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.3.2.2.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.3.2.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
bağımlı simetrisinin ilk ve herhangi bir
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.3.2.3.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.3.2.3.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.3.2.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu simetrisinin
herhangi iki durumuna bağlı

tek kalan simetrik olasılık,
2.3.3.1.4.1.1.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.4.1.1.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.4.1.1.1/5

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımsız
simetrisinin herhangi iki durumuna bağlı

tek kalan simetrik olasılık,
2.3.3.1.4.1.2.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.4.1.2.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.4.1.2.1/5

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımlı
simetrisinin herhangi iki durumuna bağlı

tek kalan simetrik olasılık,
2.3.3.1.4.1.3.1/4

tek kalan düzgün simetrik olasılık,
2.3.3.2.4.1.3.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.4.1.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu simetrisinin
herhangi iki durumunun bulunabileceği
olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.4.1.1.1/839-840

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımsız
simetrisinin herhangi iki durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.4.1.2.1/839-840

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımlı
simetrisinin herhangi iki durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.4.1.3.1/839-840

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu simetrisinin ilk
ve herhangi iki durumunun bulunabileceği
olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.5.1.1.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.5.1.1.1/4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.5.1.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımsız
simetrisinin ilk ve herhangi iki durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.5.1.2.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.5.1.2.1/4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.5.1.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımlı
simetrisinin ilk ve herhangi iki durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.5.1.3.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.5.1.3.1/4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.5.1.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
simetrisinin ilk ve herhangi iki durumunun
bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.5.2.1.1/6

tek kalan düzgün simetrik olasılık,
2.3.3.2.5.2.1.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.5.2.1.1/10

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
bağımsız simetrisinin ilk ve herhangi iki
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.5.2.2.1/6

tek kalan düzgün simetrik olasılık,
2.3.3.2.5.2.2.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.5.2.2.1/10

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
bağımlı simetrisinin ilk ve herhangi iki
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.5.2.3.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.5.2.3.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.5.2.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

tek kalan simetrik olasılık, 2.3.3.1.8.1.1.1/7

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.8.1.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

tek kalan simetrik olasılık, 2.3.3.1.8.1.2.1/7

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.8.1.2.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

tek kalan simetrik olasılık, 2.3.3.1.8.1.3.1/7

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.8.1.3.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

tek kalan simetrik olasılık, 2.3.3.1.8.2.1.1/11

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.8.2.1.1/11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk ve herhangi iki durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

tek kalan simetrik olasılık, 2.3.3.1.8.2.2.1/11

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.8.2.2.1/11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrisinin ilk ve herhangi iki

durumunun bulunabileceği olaylara göre herhangi iki duruma bağlı

tek kalan simetrik olasılık, 2.3.3.1.8.2.3.1/7

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.8.2.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.6.1.1.1/4

tek kalan düzgün simetrik olasılık, 2.3.3.2.6.1.1.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.1.1.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.6.1.2.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.6.1.2.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.1.2.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.6.1.3.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.6.1.3.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.1.3.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.6.2.1.1/6

tek kalan düzgün simetrik olasılık, 2.3.3.2.6.2.1.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.6.2.1.1/8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.6.2.2.1/6

tek kalan düzgün simetrik olasılık,
2.3.3.2.6.2.2.1/4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.6.2.2.1/8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
bağımlı simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.6.2.3.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.6.2.3.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.6.2.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bir bağımsız durumlu
simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.6.4.1.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.6.4.1.1/4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.6.4.1.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bir bağımsız durumlu
bağımsız simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.6.4.2.1/5-6

tek kalan düzgün simetrik olasılık,
2.3.3.2.6.4.2.1/4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.6.4.2.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bir bağımsız durumlu
bağımlı simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.6.4.3.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.6.4.3.1/4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.6.4.3.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumlu
simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.6.6.1.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.6.6.1.1/4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.6.6.1.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumlu
bağımsız simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.6.6.2.1/5-6

tek kalan düzgün simetrik olasılık,
2.3.3.2.6.6.2.1/4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.6.6.2.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumlu
bağımlı simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.6.6.3.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.6.6.3.1/4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.6.6.3.1/5-6

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımsız durumlu
simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.6.7.1.1/6

tek kalan düzgün simetrik olasılık,
2.3.3.2.6.7.1.1/4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.6.7.1.1/8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımsız durumlu
bağımsız simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.6.7.2.1/6

tek kalan düzgün simetrik olasılık,
2.3.3.2.6.7.2.1/4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.6.7.2.1/8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımsız durumlu
bağımlı simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.6.7.3.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.6.7.3.1/3-4

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.6.7.3.1/5

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu simetrisinin ilk
herhangi bir ve son durumunun
bulunabileceği olaylara göre herhangi bir
ve son duruma bağlı

tek kalan simetrik olasılık,
2.3.3.1.9.1.1.1/7

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.9.1.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımsız
simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,
2.3.3.1.9.1.2.1/7

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.9.1.2.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı durumlu bağımlı
simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,
2.3.3.1.9.1.3.1/7

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.9.1.3.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumlu
simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,
2.3.3.1.9.2.1.1/11

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.9.2.1.1/11

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
bağımsız simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,
2.3.3.1.9.2.2.1/11

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.9.2.2.1/11

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımsız-bağımlı durumlu
bağımlı simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,
2.3.3.1.9.2.3.1/7

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.9.2.3.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bir bağımsız durumlu
simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,
2.3.3.1.9.4.1.1/7

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.9.4.1.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bir bağımsız durumlu
bağımlı simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,
2.3.3.1.9.4.2.1/7

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.9.4.2.1/11

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bir bağımsız durumlu
bağımlı simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,
2.3.3.1.9.4.3.1/7

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.9.4.3.1/11

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumlu
simetrisinin ilk herhangi bir ve son
durumunun bulunabileceği olaylara göre
herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,
2.3.3.1.9.6.1.1/7

tek kalan düzgün olmayan simetrik
olasılık, 2.3.3.3.9.6.1.1/11

Bağımlı ve bir bağımsız olasılıklı farklı
dizilimsiz bağımlı-bağımsız durumlu
bağımsız simetrisinin ilk herhangi bir ve son

durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,
2.3.3.1.9.6.2.1/7

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.6.2.1/11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,
2.3.3.1.9.6.3.1/7

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.6.3.1/11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,
2.3.3.1.9.7.1.1/11

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.7.1.1/11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,
2.3.3.1.9.7.2.1/11

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.7.2.1/11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi bir ve son duruma bağlı

tek kalan simetrik olasılık,
2.3.3.1.9.7.3.1/11

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.9.7.3.1/7-8

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.7.1.1.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.7.1.1.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.1.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.7.1.2.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.7.1.2.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.1.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.7.1.3.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.7.1.3.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.1.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.7.2.1.1/7

tek kalan düzgün simetrik olasılık,
2.3.3.2.7.2.1.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.2.1.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.7.2.2.1/7

tek kalan düzgün simetrik olasılık,
2.3.3.2.7.2.2.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.2.2.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık,
2.3.3.1.7.2.3.1/5

tek kalan düzgün simetrik olasılık,
2.3.3.2.7.2.3.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.2.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.4.1.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.4.1.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.4.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.4.2.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.4.2.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.4.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.4.3.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.4.3.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.4.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.6.1.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.6.1.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.6.1.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.6.2.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.6.2.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.6.2.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.6.3.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.6.3.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.6.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.7.1/7

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.7.1.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.7.1.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.7.2.1/7

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.7.2.1/4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.7.2.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre

tek kalan simetrik olasılık, 2.3.3.1.7.7.3.1/5

tek kalan düzgün simetrik olasılık, 2.3.3.2.7.7.3.1/3-4

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.7.7.3.1/7

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.1.1.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.1.1.1/10

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.1.2.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.1.2.1/10

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.1.3.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.1.3.1/10

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.2.1.1/15

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.2.1.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.2.2.1/15-16

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.2.2.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.2.3.1/9-10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.2.3.1/10

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrisinin ilk herhangi iki ve son

durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.4.1.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.4.1.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.4.2.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.4.2.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.4.3.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.4.3.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.6.1.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.6.1.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.6.2.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.6.2.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.6.3.1/9

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.6.3.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.7.1.1/15-16

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.7.1.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.7.2.1/15-16

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.7.2.1/16

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.10.7.3.1/9-10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.10.7.3.1/9-10

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.1.1.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.1.1.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi bir ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.1.2.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.1.2.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu bağımlı simetrisinin ilk herhangi iki ve son

durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.1.3.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.1.3.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.2.1.1/17-18

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.2.1.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.2.2.1/17

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.2.2.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımlı durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.2.3.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.2.3.1/10-11

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.4.1.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.4.1.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.4.2.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.4.2.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bir bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.4.3.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.4.3.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.6.1.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.6.1.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.6.2.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.6.2.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı-bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.6.3.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.6.3.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.7.1.1/17

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.7.1.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımsız simetrisinin ilk herhangi iki ve son

durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.7.2.1/17

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.7.2.1/17-18

Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımsız-bağımsız durumlu bağımlı simetrisinin ilk herhangi iki ve son durumunun bulunabileceği olaylara göre herhangi iki ve son durumuna bağlı

tek kalan simetrik olasılık, 2.3.3.1.11.7.3.1/10

tek kalan düzgün olmayan simetrik olasılık, 2.3.3.3.11.7.3.1/10-11

VDOİHİ'de Olasılık ve İhtimal konularının tanım ve eşitlikleri verilmektedir. Ayrıca VDOİHİ'de olasılık ve ihtimalin uygulama alanlarına da yer verilmektedir. VDOİHİ konu anlatım ciltleri ve soru, problem ve ispat çözümlerinden oluşmaktadır. Bu cilt bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz olasılık dağılımlardan, bağımsız olasılıklı durumla başlayıp ilk bağımlı durumu bağımlı olasılıklı dağılımın ilk bağımlı durumu hariç dağılımın başlayabileceği diğer bir bağımlı durum olan ve bağımsız olasılıklı durumla başlayan dağılımın aynı ilk bağımlı durumuyla başlayan dağılımlarda, simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrisinin tanım ve eşitliklerinden oluşmaktadır.

VDOİHİ Bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz bağımlı durumlu simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre tek kalan düzgün olmayan simetrik olasılık kitabında, bağımlı ve bir bağımsız olasılıklı farklı dizilimsiz dağılımlardan, bağımsız olasılıklı durumla başlayıp ilk bağımlı durumu bağımlı olasılıklı dağılımın ilk bağımlı durumu hariç dağılımın başlayabileceği diğer bir bağımlı durum olan ve bağımsız olasılıklı durumla başlayan dağılımın aynı ilk bağımlı durumuyla başlayan dağılımlarda, simetrisinin ilk herhangi bir ve son durumunun bulunabileceği olaylara göre herhangi iki ve son duruma bağlı tek kalan düzgün olmayan simetrisinin olasılığının tanım ve eşitlikleri verilmektedir.

VDOİHİ'nin diğer ciltlerinde olduğu gibi bu ciltte de verilen ana eşitlikler, olasılık tablolarından elde edilen verilerle üretilmiştir. Diğer eşitlikler ise ana eşitliklerden teorik yöntemle üretilmiştir. Eşitlik ve tanımların üretilmesinde diğer kaynak kullanılmamıştır.